



ELIXIR 1976

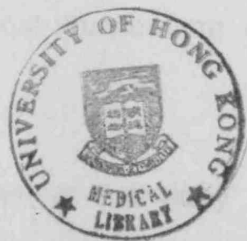
ELIXIR

OFFICIAL PUBLICATION OF THE MEDICAL SOCIETY

UNIVERSITY OF HONG KONG

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ELIXIR

OFFICIAL PUBLICATION OF THE MEDICAL SOCIETY
UNIVERSITY OF HONG KONG

A record of events in the year 1975.

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MESSAGE FROM THE DEAN

It is a pleasure to introduce a new number of Elixir recording the news and views of the Faculty for another year.

As I write this, there is some snow and ice on Tai Mo Shan, as though nature wished to emphasise the coldness of the economy this year. Nevertheless the reservoirs are almost full for our enjoyment next year and likewise it has been a year full of plans for changes in the future; some of them will affect us. It is now clear that one of these days there will be a medical school in our sister university to keep us on our toes and in the same package, a dental school for us to organise and nourish in Hong Kong University. We have had visitors to look at our curriculum to help to concentrate our ideas on this important subject. Next year we shall have students on our Faculty Board. A scheme has been worked out to get unregistered doctors on to the medical register. So while the banks have had a rest, the planners have had a field day.

More important than all these plans is the solid fact that 141 students graduated M.B.,B.S. in November. After all, producing doctors is the chief business of a medical faculty, staff and students alike. Medical-student numbers have now reached our planned maximum and we have reached the goal that we set some years ago. I am confident that we shall meet future challenges with equal success.

Finally I should like to congratulate the editorial board on bringing out this number of Elixir and to wish them and their readers every success and happiness in 1976.

J. B. GIBSON

MESSAGE FROM THE PRESIDENT OF THE MEDICAL SOCIETY

Elixir as a journal has stood the test of time. It has maintained its regular publication and has shown progressive improvement in its standard of production and the quality of its contents. This has been achieved through both the hard work of the editorial board and the support of the contributors and readers.

Education should essentially be a spontaneous and self-seeking process. This concept finds its application most appropriate to our medical profession in that self-education should be a continuous process throughout a doctor's career. During the period of undergraduate education, this concept can be put to practice in different forms. One very meaningful of such activities is the publication of a journal. Everything that goes into the making of the journal comes as spontaneous effort from the students. The students should realize the significance of this work and should make good use of it.

PAUL C. K. YUE

MESSAGE FROM THE CHAIRMAN

Before anything, I have to ask for excuse for being unable to write a satisfactory message due firstly to my limited knowledge and secondly to the fact that I am much disturbed at the time of writing by a most unexpected event in my course.

We have this session a year of different activities, new attempts and many new opinions raised, all directing to the aim of better unity in the future. Social concern has been the general trend which should have a lot to develop. One must also notice the great work load of the school which require more and more students to help the Executive Committee and the Society. I would like to make use of this opportunity to express my thanks to the other members of the Executive Committee and the other fellow students who have also contributed their sincere efforts to the Society. Let us try our best to bring about more unity, understanding, love and care among staffs and students in the future!

CHOW WING CHO

*Medical Society Chairman,
Session 1974-1975.*

ACKNOWLEDGEMENTS

The Elixir Editorial Board wishes to express its most sincere gratitude to the following contributors:

Prof. J. B. Gibson	Miss Ng Wai Yee
Prof. A. S. Duncan	Mr. Leung Ming Keung
Prof. M. B. Roberts	Mr. Lam Tai Kwan
Dr. H. C. Ho	Mr. Chan Kwok Wah
Dr. P. C. K. Yu	Mr. Szeto Siu Cheong
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Mr. Chow Wing Cho	侶 笙
Mr. Shum Wai Pong	華 顯

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ELIXIR LOAN FUND

STATEMENT OF ACCOUNT FOR THE TWELVE MONTHS ENDED JUNE 1975

Balance of Fund as at 1st July 1974	\$87,457	Loans: outstanding at 1st July 1974	\$78,050
Donations received	1,880	less repayments received	13,150
Bank interest	603		<u>\$64,900</u>
Balance of Fund at 30th June 1975	<u>\$89,940</u>	Granted during year	22,000
		Total outstanding at 30th June 1975	<u>\$86,900</u>
		Cash: with Students' Medical	
		Society	\$ 200
		with HKU Finance	
		Office	2,840
			<u>3,040</u>
	<u>\$89,940</u>		<u>\$89,940</u>

September 12, 1975

**OFFICE BEARERS OF THE HONG KONG UNIVERSITY
MEDICAL SOCIETY H.K.U.S.U. 1974-75**

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Vice-President:

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Financial Secretary:

Mr. Lo Wing Lok

External Affairs Secretary:

Mr. Tse Wai Chung, Wilson

Internal Affairs Secretaries:

Mr. Chan Ping Man
From 21st November, 1974
to 20th January, 1975.

Mr. Shum Wai Pong, Daniel
From 6th February, 1975 onwards.

Sports Secretary:

Mr. Leung Chi Wang, Stephen

Social Secretary:

Mr. Wong Sik Ming

Ex-Chairman:

Mr. Chan Tat, Eddie

Class Representatives:

Final Year —

Mr. Yu Chau Leung, Edwin
Miss Koo Wai Ling, Assumpta

4th Year —

Mr. Leung Ming Keung, Kevin
Miss Lau Suet Ting

3rd Year —

Mr. Lai, Benjamin
Miss Lok Suk Fong, Anna

2nd Year —

Mr. Siu Ting Wing
Miss Lam Chi Chin, Catherine

1st Year —

Mr. Li Tin Chiu, Lawrence
Miss Yung Hiu Yan, Anna

Student Senator:

Mr. Goh Kim Yeow, Bobby

Elixir Chief Editor:

Mr. Woo Lap Wai, Geoffrey

Caduceus Chief Editor:

Mr. Lau Pui Yau

Fraternity Committee Chairman:

Mr. Chen Chung I, Raymond

Health Officer:

Mr. Kwan Chee Keung

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Miss Wong Mei Ling, Theresa

*Student Representative in the Sing Tao
Fat Choy & Vincent Woo Loan Fund
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Mr. Ting Kar Wai

*Student Representative in Faculty Review
Committees:*

Mr. Leung Ming Keung, Kevin
Mr. So Ping Cham

MEDICAL SOCIETY
HONG KONG UNIVERSITY STUDENTS' UNION
SESSION 1974-75

ANNUAL GENERAL REPORT

The session 1974-75 of the Medical Society, H.K.U.S.U. began on 21st November, 1974, with the following elected as members of the Executive Committee:

<i>Chairman</i>	Mr. Chow Wing Cho
<i>Vice-Chairman</i>	Mr. Chan Kwok Tat
<i>General Secretary</i>	Miss Leung Pui Ngor, Ellen
<i>Financial Secretary</i>	Mr. Lo Wing Lok
<i>Ext. Affairs Secretary</i>	Mr. Tse Wai Chung
<i>Int. Affairs Secretary</i>	Mr. Chan Ping Man (resigned on 20.1.75) Mr. Shum Wai Pong (from 6.2.75 onwards)
<i>Social Secretary</i>	Mr. Wong Sik Ming
<i>Sports Secretary</i>	Mr. Leung Chi Wang

During the session, 4 extraordinary general meetings, 8 council meetings, 8 emergency council meetings and 27 Ex-Co meetings were held.

The following of the report will be a brief account of the events held during the past year:

STUDENTS' WELFARE

1. Canteen

- a. There has been trouble with Canteen affairs at the beginning of the year. A set of questionnaires has been distributed to the students and found that most of the students thought that the canteen service had been unsatisfactory. However, owing to the fact that there were some legal problems bound by the contract, the Society could not terminate the caterer's contract then. With the employment of a new cook, the service has improved for the past few months. And we have contacted our legal advisor for advice and amendment on the canteen contract. Besides, careful consideration has been taken to choose the present caterer who has started his service from November 1 this year (1975).
- b. The Internal Affairs Secretary has represented the Society to sit in the Catering Committee which has monthly meeting to deal with matters relating to Canteen in the University and held inspections of various canteens to examine the standard of food.

2. Common Room Facilities

- a. An agreement has been made that the warden of the Medical Students' Centre and the Int. Affairs Secretary have dual right in lending common rooms.
- b. Table-tennis balls are available in the Society Office on request but the pads are always lost. Consumption rates of both have been very high.
- c. A piano (old but useful) has been transferred from the Students' Union bldg. to the Men's Common Room here with the effort of our vice-chairman.

3. Magazine and Newspaper

More than 20 different kinds of magazines have been donated to the Medical Society throughout the year. These are then transferred to the Medical Library. Newspapers are also available in the Library.

4. Elixir Loan Fund

A total amount of \$22,000.00 has been loaned to 17 applicants out of 26. With the help of Mr. Gunaratnam, the Assistant Secretary of the Finance Office and Prof. Gibson, our Dean, the whole account of the Fund is transferred to the Finance Office. Therefore, while the administrative and awarding board will continue to be the responsible body of the Medical Society for these funds, payment of any kind concerning the fund should be directed to the Finance Office.

5. Co-op

- a. All stocks are sold in Canteen (except medic sweater) so there is a better management. A commission of 4% is given to the Canteen staff.
- b. Some stock items such as paper files, bags, stationery, were brought from the Students' Union and were available also in the Canteen.
- c. A Christmas Card design competition has been arranged for the Society X'mas Card this year. And new X'mas card will be ready by December.

STUDENTS' REPRESENTATION

1. Dean's undergrad meeting

This serves a more direct channel for staff-students communication with discussions concerning both academic and extracurricular aspects. As the future plan of having students' representatives in the Faculty Board will replace the present student-staff consultation committee, so this kind of meeting will probably not be held in the near future.

2. Students were also represented in the Faculty Review Committee, the Medical Library Committee and the Sing Tao Fat Choy and Vincent Woo Loan Fund Selection Committee.

STUDENTS' ACTIVITIES

1. Publications and the associated activities by the Caduceus and Elixir Standing Committee

- a. Medic Handbook: a cover design competition has been arranged and the prize went to Mr. Tse Kwok Kay. The booklet was published and were distributed in Feb.
- b. Bulletin: 9 issues had been made during the academic year. Main emphasis were put to various activities and other information inside the faculty, but relevant news outside were also included.
- c. Phamplets: Information sheets relating to the interest of all medical students were published from time to time — public statements, timetable and regulations for sports activities, some regulations, council minutes, etc. And they proved to be good means of communication.
- d. Elixir: The Elixir 1974 was published in March, 1975. Over 1100 copies were distributed to the students, members of the teaching staff, house-officers, hospitals, local and oversea institutions that have maintained connection with the Elixir Journal.

In March, 1975, the McFadzean Memorial Issue was jointly published by the Elixir and the Caduceus.

The 1975 issue will be available in January, 1976. This issue features a symposium on Chinese Medicine and other articles on Brain Drain and Medical Services in Hong Kong.

e. Caduceus:

Monthly publication of the Society Newspaper

Each monthly issue is based on a central theme, and also articles contributed by students or staff members.

Main topic(s) in each issue:

- | | | |
|--------------------|---------|--|
| January | .. .. . | one year residence, introduction of standing committees. |
| February | .. .. . | Kwun Tong Community Health Project. |
| March | .. .. . | 1st M.B., B.S. examination. |
| April & May | .. .. . | Medical officers affair. |
| June | .. .. . | Review on medical curriculum. |
| August & September | .. | Orientation. |
| October | .. .. . | Review on Medical Curriculum. |
| November | .. .. . | Follow up work of the Sexual Health Exhibition. |

Special issue publication

- a. A special issue on 'one year residence' had been published in accordance with the forum held on January 7, 1975 by the Medical Society.
- b. A memorial issue for our late Professor McFadzean published by Caduceus and Elixir.
- c. A special issue on the review of curriculum of M.B., B.S.
- d. A combine issue in October with Pulse, Rotor, and Undergrad on 'Technology of China'.
- e. An issue on "Caduceus Week".

Forum

A forum on Community Health Project was held on March 6, 1975 together with the Health Committee.

Setting up of a News Board

A news board had been set up in March, so as to promote the chance of the fellow students obtaining up-to-date news.

Mr. Loo Wan Tin has been recruited as the news editor in April.

Friendly gathering

Fellow members of different classes in the Faculty of Medicine were invited to the gathering which was held on 14-1-74 in Men's Common.

Questionnaire

A questionnaire had been sent to 2000 HK general practitioners concerning the further improvement of Caduceus. According to the circulation of Cad., 2000 copies are sent to the general practitioners in Hong Kong, and they form part of the readers of Caduceus.

The result of the questionnaire was analysed in May, and the result was published in the May issue.

Caduceus Week

The Caduceus Week was organised in 27th — 31st October, 1975. Programme of the week includes Slide show, book exhibition, seminar on Community Health, exhibition on Medicine in China.

2. Medical Society Office

- a. Open hours: There had been a fixed period of opening of the office in the morning, lunch and afternoon session. In addition, we have try our best to open the office at extra time and at the request of fellow students. The morning session of opening the office had been found to be impracticable and has been cancelled since the beginning of the new school year.

- b. Facilities: We have a duplicator, a portable loud speaker and a new typewriter obtained from the Students' Union. We have also installed a new telephone (direct line service). Together with the stationery, the slide projector, the original telephone (indirect line service), typewriter, BBQ forks, all these are available to fellow students.
- c. Mass Clearance: Three mass clearance and rearrangement had been made to the Society Office, aiming at getting a clean and orderly place to work in.

3. Arrangement of Posters

- a. All posters must be signed by the Ex-Co, and put up in the appropriate allocated places.
- b. It was agreed that the Internal Affairs Secretary should be responsible for matters concerning the posters in the Medical Students' Centre.

4. Notice Board

A notice board had been set up at the beginning of December last year, aiming at providing a direct channel for opinion. The general response had not been good and we decided to leave the Board and make use of other more practical means of communication.

5. Class Visits

The result was discouraging as we could not find a suitable period (occasion) for our fellow students to voice their opinions freely. So we would rather prefer other means of communications e.g. personal contacts, opening of office, general meetings and internal gathering.

6. Sports

a. Interfaculty Competition

We are again the overall champion this year and the championship Omega Rose Bowl will remain in our faculty for the 7th consecutive year.

Results of the 12 events are as follows:—

Champion	in	Aquatic Meet Athletic Meet Badminton Hockey Lacrosse Tennis Volleyball
1st Runners-up.. .. .	in	Basketball Softball Table-tennis
2nd Runners-up.. .. .	in	Soccer
4th	in	Squash

This year (1974-75) we were placed second in the Aquatic Meet. Up to now, we have Badminton, Soccer and most likely Basketball entering the semi-final.

b. Inter-year Competition

We were grateful to have Dr. Frank Cheng kindly donated a shield for the overall champion and 3rd year (1974-75) was the first one to keep this new shield for a year. The Professor Gibson's Cup for Intrafaculty Swimming Competition went to 3rd year (1975-76).

The results were as follows:—

(a) Inter-year Games (held in April and May)

						Champion	Runners-up
Men's	Badminton	..	..	..	..	2nd	4th
	Basketball	..	..	..	..	2nd	1st
	Hockey	..	..	..	..	4th	3rd
	Lacrosse	..	..	..	..	3rd	4th
	Squash	..	..	..	..	3rd	4th
	Soccer	..	..	..	..	4th	3rd
	Softball	..	..	..	..	3rd	4th
	Table-tennis	..	..	..	..	2nd	1st
	Tennis	..	..	..	..	4th	1st
	Tug-of-war	..	..	..	..	3rd	2nd
	Cross-country-run	..	..	..	1st	3rd	
Ladies'	Badminton	..	..	..	..	3rd	4th
	Netball	..	..	..	..	3rd	4th
	Table-tennis	..	..	..	..	4th	3rd

OVERALL CHAMPION: 3rd year (1974-75) — 108 points

OVERALL RUNNERS-UP: 4th year (1974-75) — 106 points

(b) Interyear Swimming (held on October 9, 1975)

OVERALL CHAMPION: 3rd year (1975-76) — 86 points

OVERALL RUNNERS — UP: 2nd year (1975-76) — 70 points
1st year (1975-76) — 70 points

Sportsman of the year: Mr. Koo Ping Kwong, Kenny (4th Year 1974-75)

Sportswoman of the year: Miss Kwan Kit Wah, Joyce (3rd Year 1974-75)

c. Training Course

A Badminton Training Course was organised in March through Badminton Club. The response was good and over 50 fellow students from 1st and 2nd year joined the course.

7. Social Activities

- a. Christmas Carolling: This is a joint function with the Arts Association on 21st Dec., 1974 at Marycove Centre. There were about 40 students participated. Gifts donated by students were distributed to the girls there.
- b. New Year Dancing Party: The party was organised on 1st Jan., 1975 at Lok Yew Hall. Over 300 persons attended among them were our honourable guests Dr. Rayson Huang and Dr. M. L. Ng.
- c. Annual Ball: This was held on 21st June, 1975 at the Mandarin Hotel. About 90 couples enjoyed the occasion. The profits (about \$3000) of that night will go to the Elixir Loan Fund of the Society.
- d. Medical Nite: It was held on 15th Sept., 1975 at the Loke Yew Hall and was attended by about 400 students. The drama performed by 4th year came first while the 1st runners-up went to the final year. Prizes for the Inter-year Sports Events, Medic Handbook design competition and the drama competition were also presented in the same occasion.
- e. Medic Choir: The Medic Choir had been organised by the Society in January this year and over 50 members joined. The choir had represented the Society in the Inter-Faculty Music Competition and also participated in the Medic Concert.
- f. History Class: An interest group on Chinese History for the recent decades was organised by the Medical Society. The director was Mr. Lam Yung Chi and regular seminars and discussion were held. A talk by Mr. Li Yok on Chinese Civil War had been given in May this year.
- g. Medic Concert: This was held on 6th Sept., 1975 at the Loke Yew Hall and was well attended by over 400 students. Both students and staffs had showed their intelligence in music. Guests' performances include Union Choir, Dr. Li, Dr. H. C. Liu. The guest of honour of that evening was Dr. M. L. Ng, our Vice President who presented the sourvenoirs for us.
- h. A talk on "For all we know about 1st M.B." was held in April under the request of 1st year students. About 80 students attended the occasion.

8. External Affairs

- a. Exchange Activities: During this session, the Faculty accepted a total of 46 students for their elective clerkships in various clinical departments.

Of these, 5 applied via the IFMSA professional exchange scheme handled through the Medical Society. In addition, there were two students who applied initially to Medical Society and were pending acceptance.

Our students also took part in the exchange this year. 14 applications were sent out mostly to Japan. 5 of them are accepted but only 2 actually took part because other were assigned to inappropriate periods.

The proposed mutual exchanged programme with the medical students in Singapore University has not yet been finalised with further attempts. The current curriculum review within our own medical faculty may have much bearing upon the programme, and the viewpoints of our students have been included in the Report of the Commission on Curriculum Review of the Medical Society.

- b. Relationship with IFMSA: An Asian Regional Workshop on Population was organised in Singapore by the IFMSA Standing Committee on Population Activity. Mr. Li Ka Kou and Mr. Kelvin Leung (essay competition winner) took part in that workshop. Miss Lilian Pusavat was elected as our delegate to the 24th IFMSA General Assembly this year in Philadelphia. Hong Kong was elected into the Standing Committee on Medical Education.
- c. Relationship with ARMSA: No delegate was elected this year to the 9th General Assembly held in Australia.
- d. Reception: A study tour group of 8 medical students and 2 lecturers of the University of Singapore visited Hong Kong in June.

Accommodation arrangements had also been made for foreign exchange students when necessary.

- e. Medical Student Travel Fund: Final approval for the establishment of such a fund had been passed in the Medical Students' Council and members of the Board had also been elected. Administrative procedures had been slightly modified this year in coordination with the Central Fund Raising Scheme of the Medical Society in this session.
- f. Kweilin Tour: Some of our members took part in a tour to Kweilin in July. The tour was arranged with students from other institutions of Post-Secondary Education.

9. Fund raising and financial activities

- a. The Central Fund Raising Scheme

A new financial system — The Central Fund Raising Scheme, has been set up. The aim of the system was to coordinate various fund raising projects (e.g. The Gala Premeire, Advertisements in Caduceus, Advertisements in Elixir Journal etc.) to centralize the funds raised from these projects and to allocate these funds to various projects of the Medical Society and the Ex-Co. according to a budget adopted by the Medicals' Council at the beginning of the session. Under the Central Fund Raising Scheme the finance of the Standing Committees, Executive Committee and various projects are interdependent.

- b. The Gala Premeire

Besides funds already available and funds from advertisements. A Gala Premiere of the film 'First Love' was held on June 24, 1975 at 9.30 p.m. at the Lee Theatre. \$13995.00 was raised from this function.

10. Talks and Seminar

- a. A talk on Azoospermia on 6.11.75: The Department of Obstetrics and Gynaecology has the idea to set up a Students Semen Donors Panel to help the infertile patients. Dr. Yeung Kwok Keung from that Department has kindly given us a talk on Azoospermia explaining the interesting questions concerning mainly the problem of artificial insemination of donor's semen. About 100 students attend the occasion.
- b. A Seminar on 'Health, Community and You' is jointly organised by the KTCHP (Kwun Tong Community and Health Project) and the Medical Society, HKUSU. The seminar is held on 27.7.1975 at Nurse School Hall of United Christian Hospital. The object is to mobilise F.5 and 6 secondary school students in Kwun Tong during summer vacation in the KTCHP.
- c. *Presidential Address*: The highlight of our function this year — the 'Presidential Address' is held on 19th November, 1975.

Our President, Dr. Paul Yue, has kindly consented to give an address in the title 'Paediatric Surgery — its development, Achievement and Role in the Delivery of Medical Care.'

A tea gathering, Society Photos and presentation of souvenirs were also held in the occasion.

11. Constitution Revision Committee

The Medical Students' Council agreed that there were short-comings in the present constitution of the Society and a Constitution Revision Committee was therefore set up, which consists of seven members.

The revised constitution had been passed in an extraordinary general meeting. In addition, a by-law governing the release of statement to public had been set and constitution of Caduceus was also revised in the Council.

12. Review on Medical Curriculum

With reference to the arrival of two Advisors on our curriculum, a commission had been set up for the purpose of carrying a review on the present Medical Curriculum. Mr. Shum Wai Pong and Mr. Chan Kwok Tat were elected as the Chairman and Vice-Chairman respectively of the commission.

A preclinical curriculum review committee, comprised of mainly 2nd year students was also working in parallel.

The final report from the commission on review on Medical Curriculum was received and adopted in the Council and has been presented to the two Advisors and to the Faculty. It was also published as a special issue of Caduceus.

13. Film shows

Three film had been brought to the Medic Centre: Memories of Underdevelopment, The Great Battle of China (天翻地覆慨而慷), Inside N. Vietnam. Generally, attendance was encouraging.

14. Forum on one year residence

A Forum was held concerning the one year residence and role played by halls in U-Education. Wardens from the 5 residential halls and dean of the students had been invited to the forum. Although the response was not at all satisfactory, the forum do stirred up some concerns.

15. Activities of China Week

- a. The "Exhibition on the Development of Science and Technology in China": The Society realised the lack of communication and coordination among students of either the same or different faculties and agreed to hold a joint Science and Engineering faculties exhibition as a step towards improving the communication. A joint executive committees meeting has been held and we preliminary decided that the content of the exhibition to be 'The History of Development of Science and Technology in China' as we would also like to make use of the occasion to know more about the scientific development in China. A 'Joint Faculties' central committee had been set up which latter decided to incorporate this exhibition into the 'Development of Science and Technology in China' Exhibition organised by the HKFS. The exhibition had been held successfully in Mid-October at City Hall and more than 100 medical students had participated in the project.
- b. Research of Modern China: students from Medical Society took part in the Musical Instrumental Item in the Performance Nite.
- c. A talk on 'Mechanism of Acupuncture Anaesthesia — How much do we know' was given by Dr. Samuel Chan. The Talk was welcome by about 200 students.
- d. A Book Exhibition outside the Medic Canteen has been arranged for 2 days.
- e. We were also grateful to the China Study Society (國事學會) for their generous help in arranging a series of film shows in Medic Centre during the Week.

16. Joint Committees Functions

- a. A Joint Ex. Co. and Standing Committees picnic had been held in December 1974 and views, on the future activities and the proposed 1 year residential policy, had been exchanged. It was the 1st time when many of this year's office bearers and other enthusiastic students came together and got to know each other.
- b. A Joint Ex. Co. and Standing Committees camp has been held in February 1975. The main theme of the camp was to discuss the trend of the Society.
- c. An Internal Gathering had been held in November 1975. A brief report on the activities held this session was given and comments collected.

17. Friendly Meetings with Undergrad. Editors

Two meetings have been arranged for the Undergrad. Editors to meet our fellow students and members of the committees of the Society. Opinions from medical students had been given and we had had much understanding towards the working policy of the Undergrad Editors through such friendly discussions.

18. Students from Chinese University and Baptist College

About 21 students from Chinese University and Baptist College had visited the medical students' centre on 12.11.75. They had a short tour here and exchange views with medical students.

19. Students' Union Activities

- a. Union Festival: The Union Festival was held on March 1st-9th. Medical Society was invited to take part in Music Competition, Inter-Faculty Drama Competition and the Festival Day Fair.

About 30 Medical Students participated in the Inter-Faculty Drama Competition and produced, under the Producer Mr. Lo Wing Lok, a drama named 'the Medical Student'. We were able to achieve the 1st runners-up and Mr. Lo Wing Lok was elected the best Producer.

We have also participated in the Music Competition in the Union Festival, although we did not win, our students had done a good job.

Mr. Wong Sik Ming and Mr. Woo Lap Wai had prepared a stall for the Medical Society in the Union Fair held in Lily Pond in the Union Festival. The Medical Society had played a very active role in the Festival.

Film Shows were also shown by members of the MIC as part of the programme in the Union Festival.

- b. General Pollings: The following Incidents were voted by General Polling and a polling station was situated outside the Medic Canteen:

Election of the Union Ex. Co.,

Election of the Student Senator

Election of the Popularly Elected Councillors

Polling of various Statements.

- c. Union Orientation: In response to the Union Orientation for the new Undergraduates this year, the Medical Society welcome the freshman to have a tour round, the Medic Students' Centre. About thirty medical students volunteered to lead the visiting new undergraduates of the University around our Medical Campus.
- d. Union bulletins, other publications and the Undergrads were available throughout the year. They were mainly placed in the Medical Library.
- e. Meeting with Union Executive Committee: A friendly meeting with the Union Ex-Co, had been held on 25/10. We exchanged ideas concerning the problem of communication, China Week, coordination with other clubs and the HKFS, student facilities and Student-Staff relationship.

20. Orientation Activities by the Fraternity Committee

- a. Academic Orientation: The orientation organised by the Union on July 17 and 18, 1975 was helped by the Committee in giving applicants for the Faculty of Medicine some information regarding the admission.
- b. Welcome Party: Welcome Party for the freshmen was held on August 29, 1975 and Professor Gibson, Dr Fong and Mr. Chow Wing Cho were invited to give speeches to the freshmen. Tea and campus tour were conducted by student tutors afterward.
- c. Second Hand Book Sale: This sale was arranged and held on Sept. 4, 1975 in the Recreation Room, money and unsold books were later returned.
- d. Library Tour: The tour was arranged with the Librarian for the freshmen.
- e. Fraternity Camp: The Camp was held on Sept. 10-12, 1975 in Ho Fok Tond, Castle Peak. Attendance (participants) numbered about 140. The programme includes slide show 'Making of a Doctor', talks from medical officers, talks from lecturers of the pre-clinical department; camp fire, group games and discussion, visit to Castle Peak Hospital and introduction to Medical Society.
- f. Clinical Orientation: This was organised in conjunction with the Medic '78 Class Committee for the third year students and the occasion was held on Sept. 26, '75. A number of speakers from 4th and final year were requested to speak on life in clinical years, followed by group discussion and a tour to Q.M. Hospital.
- g. Fraternity Nite: This was held in Loke Yew Hall on Oct. 8, 1975. The general response was not too good and the number of attendance was about 2 hundreds. The programme consists of Folk dance, slide show, musical performance and drama, etc.

21. Activities organised by the Health Committee

- a. University Blood Donation Week: The Health Committee had assisted the Red Cross in making arrangement for setting up a blood donation centre at the Physiology Demonstration Room from 22nd to 24th January, 1975. The response from our fellow students was overwhelming and 150 medical students joined the blood donation.
- b. Talks: In the light of promoting the interest of medical students to health problems in Hong Kong, a number of talks was arranged. They included:
 - (i) 'Introduction of Kwun Tong Community Health Project' on 6/3/75 by Mr. Lee,

Assistant Health Director,
Community Health Programme,
United Christian Hospital.

The talk consisted of a brief introduction of Kwun Tong Community Health Project and a slide show. Around 30 students attended this occasion. This talk was arranged jointly with Caduceus Editorial Board.

- (ii) 'Social aspects of Venereal Diseases and their public health control in Hong Kong' on 12/6/75 by Miss Lam,
Senior Health Visitor,
Social Hygiene Clinic,
Tang Siu Kin Hospital.

This talk was held at the Men's Common Room. About 40 students attended the talk.

- (iii) 'A brief introduction and medical application of Transcendental Meditation Society and Dr. Y. K. Tam, lecturer of Department of Psychiatry. This talk was held in the Physiology Lecture Theatre on 13.11.75.

- c. Film shows: In order to widen the scope of our medical knowledge, a series of film shows were held during the year. They were as follows:

- 17.2.75 Propagation of Labour
Normal Labour
The Cough
- 3.3.75 Heart Transplantation
- 10.4.75 Kidney Function in Health
Triad of Infection
- 5.5.75 Dialysis Procedures
Fractional dilatation and curettage.

- d. Visit: A visit to Cheung Chau was arranged on 21st June, 1975. The aim of this visit is to promote the understanding of rural health service in outlying areas such as Cheung Chau. About 30 students participated in this function. In the morning, we first had a tour around Cheung Chau Island to investigate the sanitary condition and environmental hygiene, led by the Health Inspector of Cheung Chau. In the afternoon, a visit was paid to the St. John's Hospital and a local Charity Hospital. Besides, family visits were arranged so that we can talk with some of the local people. Hence, a better understanding and deeper impression was obtained.

- e. Mobile Exhibition: At the present moment, we are still preparing the slide show on 'Signs and Symptoms of Common Diseases' and it is estimated the will extend up to Jan. 1976.

- f. Organization of a study project on 'Medical Service in Hong Kong' is now under-way. The content of the study project includes:

- (i) Government Medical Service
- (ii) Private practitioners in Hong Kong
- (iii) Rural Health Service
- (iv) Urban Health Service
- (v) Industrial Health
- (vi) School Health Scheme

- g. Sexual Health Exhibition: This was held in September in the City Hall. The total number to the exhibition reached to about 40,000.

- h. Sexual Health Exhibition: This was held from 18th to 23rd Sept., 1975 in the City Hall. It aimed to introduce basic sexual knowledge to the general public and hopefully, to correct their misconceptions. A lot of publicity work was done on TV, radio and newspapers for the exhibition. The exhibition mobilized about 400 students from the Medical Faculty, Sociology Society of HKUSU, students from Sir Robert Black College of Education and some secondary schools. In general, the exhibition proved to be a great success and aroused interest from all sectors of the community. About 45000 visitors were attracted and, moreover, more than 17000 SHE booklets were sold during the exhibition.

The Executive Committee would like to express their hearty thanks to the following members of the Society for their sincere help, valuable advice, guidance and encouragement in the past 12 months:—

Dr. Yu Chau Leung
Dr. Paul Yue
Dr. M. L. Ng
Dr. Stephen Ng
Dr. Samuel Chan

24.11.1975

(Sd.) Ellen Leung Pui Ngor,
General Secretary.

SOCIETY ACTIVITIES: Joint Christmas Carolling



*Arriving at the MaryCove Centre
Ladies and gentlemen, are you all ready?*



Let's fill the room with our joyous music!

NEW YEAR DANCING PARTY



Welcome! Dr. & Mrs. Huang.



咁光猛，全無氣氛！……舞會尚未開始嘛！

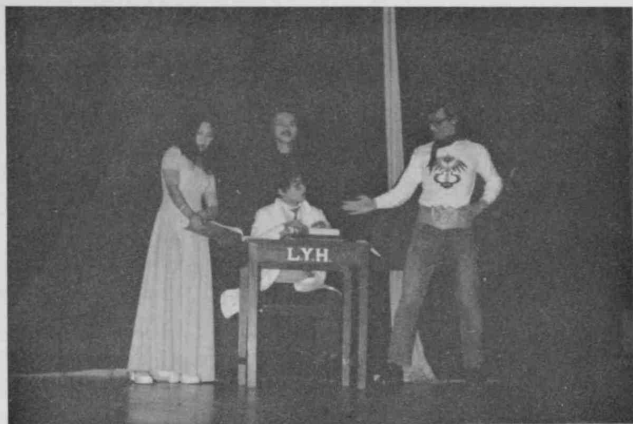


Hmm! I could have danced all night!

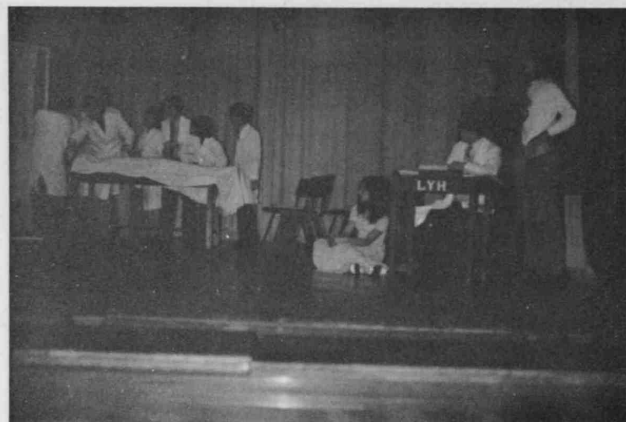


Dr. Ng presents a gift to this lucky couple.

INTERFACULTY DRAMA COMPETITION



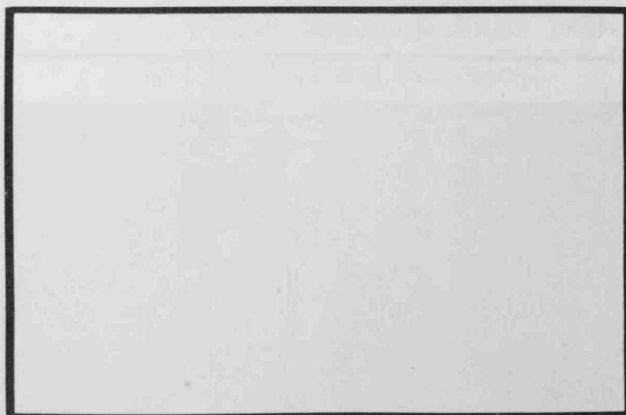
*What should I choose? —
The fair or the fame?*



*The medical students are learning from
the poor patient.*



台前幕後，人人有功



Censored !?

UNION FUN FAIR



*What is attracting such a large crowd to
the Medical Society's stand?*



Could it be these three workers?

ANNUAL BALL

SEXUAL HEALTH EXHIBITION



Our Social Secretary swinging to the wonderful music.



The boys may also be interested.



*Please pay attention
Dr. Ng may pick up your lucky number!*



The future dadies and mummies are paying close attention.



唔使害羞㗎，接住喇



巾幗不讓鬚眉

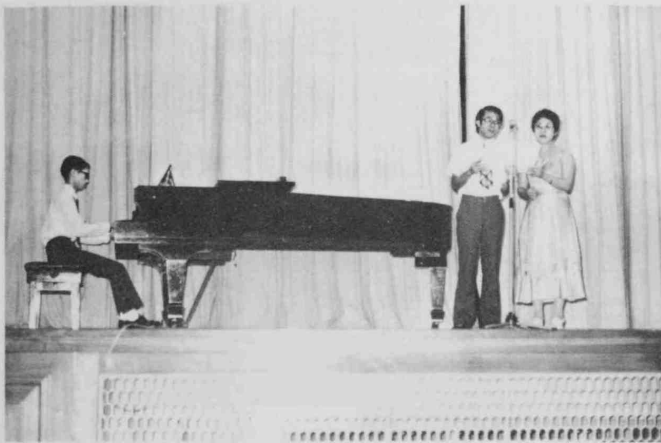
MEDIC CONCERT



*The Medic Strings Orchestra —
the only one in the University.*



Dr. K. M. Li — Male voice solo.



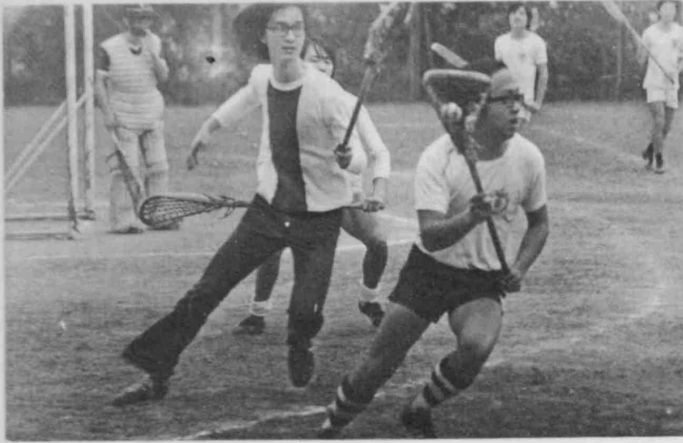
*Dr. H. C. Liu & Mr. Wong Kar Hing
on stage.*



*The Medic Choir —
under conductor Mr. Chan Shun Hung.*

SPORTS ACTIVITIES





EXHIBITION ON THE DEVELOPMENT OF SCIENCE & TECHNOLOGY IN CHINA
中國科技史展覽



HKU MEDICAL SOCIETY COMMISSION ON REVIEW OF MEDICAL CURRICULUM: A SUMMARY OF THE FINAL REPORT

By Ng Wai Yee, Shum Wai Pong

ORIGIN AND AIM

In May, 1975, the Medical Society was invited by the Faculty of Medicine to take part in the review of the medical curriculum. In view of this, a commission was set up whose aim is:

1. to convey the students' opinion on the present curriculum
2. to recommend changes from their point of view.

This commission comprises of 7 members, of which Mr. Shum Wai Pong and Mr. Chan Kwok Tat were appointed as the Chairman and Vice-Chairman respectively. A total of 500 questionnaire copies was distributed and 295 of them were returned. Apart from this, a forum and study groups had also been formed.

GENERAL COMMENT

As doctors are trained to cure disease as well as to produce and maintain an optimal health standard of the community, medical students should be taught to be more health-oriented. Maintenance of this optimal health standard includes measures for the prevention of both physical and mental illnesses and their eradications. Unfortunately, the preventive side of Medicine has not been sufficiently emphasized in our medical school.

The undergraduate course is to enable a student to learn how to treat patients and acquire the general experience of medical practice, however, a present shortage of postgraduate training posts in HK should not be overlooked.

Besides training doctors for general practice, the curriculum must also aim at giving the graduate an intensive and solid medical background to enable them to take up specialty training.

90% of the students think that some formal lectures are useless. Instead of being a repetition of textbooks, they should rather be a guide for further reading and explanation. 65% students prefer to having the number of lectures cut down. Lectures should be supplemented with a 'rotatory tutorial system'. About 90% of the students welcome the idea of some regular seminars with an integrated approach from various preclinical and clinical departments.

Language proficiency should be emphasized in the employment of lecturers. In the case of employing pre-clinical lecturers, priority should be given to those with clinical training. In addition to this, the staff to student ratio should be maintained at all times.

Concerning the summer holidays, about half of the students prefer the present term schedule. However, some 40% of them would rather have a shortened summer vacation [e.g. at the end of second year] so that lectures could be less crowded and more time could be allocated for paraclinical subjects.

52% of the first and second year student favour the use of summer holidays for projects on clinical or social aspects of medicine, with their performance being included in the assessment of the student.

Most students feel that the first MBBS exam is a great burden. 70% of them prefer continuous assessment. It is hoped that the following suggestions may be taken into consideration:

- a. more multiple-choice type and short questions in MBBS examinations.
- b. performances in term tests and comprehensive test should count for 20-30% of the MBBS exam result.

The relationship among departments is unsatisfactory.

A temporal coordination between departments [as that done in neurophysiology and neuroanatomy] is to be encouraged. Teaching in anatomy, physiology and biochemistry should be of a more integrated approach. A more unified and consistent approach in overlapping areas should be aimed at. Furthermore, illustrative clinical case-studies in preclinical courses in the form of seminars or meetings should also be encouraged.

As for clinical courses, attempts should be made to coordinate some parts of clinical lectures together. It should be emphasized that *team approach* are becoming more and more important in modern days.

PRECLINICAL COURSE

Since preclinical course is to enable students to acquire some fundamental knowledge in the science of medicine, and to adapt a scientific attitude towards medicine, this course should cover a general and wide scope of subjects.

Suggestions on the duration of this course are controversial. However, the commission thinks that the present 5-term schedule is an optimism one, since sufficient time must be allocated for the rapidly expanding basic medical science.

50% of the students feel that community medicine should start right in the pre-clinical years and be integrated with sociology and statistics. Sociology should be related to social problems and medical situations in HK. Statistics should include surveys and community projects.

Some students suggest that physiology should be taught with relation to anatomy and biochemistry. They prefer simple original observation on physiological phenomenon to the classical physiology experiments.

78% students think that the biochemistry practicals are too stereotyped and irrelevant. They seem to find simplified biochemistry tests related to clinical practice more important.

The following will be some suggestions as to the teaching of anatomy:

- a. selective lectures on different topics [e.g. perineum]
- b. clinicians giving lectures on the clinical aspects of anatomy
- c. more demonstrations and films together with the use of models, seeing living human structure in the signal theatre in small groups
- d. systematic presentation of relationship between function and structure in microanatomy topics
- e. demonstration of tissue slides by projection microscope.

Concerning neurology, the present integration between neuroanatomy and neurophysiology is still unsatisfactory. It is very necessary for a new department of neurology to be set up, correlating all preclinical, paraclinical and clinical subjects.

Next comes the suggestions for radiology and embryology:

- a. it is hoped that demonstration time of X-rays should be prolonged
- b. it would be better if radiographs are available for revision
- c. models and film should be used during embryology lectures.

Last, but not the least, for preclinical course is that English course on a voluntary basis and regular P.E. lessons for second year student should be conducted.

PARACLINICAL COURSE

The suggestions the commission would like to give are as follows:

1. The summer holidays after the second be shortened to 2 months so that more time can be allocated to the subjects.
2. The second M.B.,B.S. exam should be held after the junior clerkships, with 2 weeks of free time immediately preceding it.
3. Each of the junior clerkships should last for only 9 weeks and should overlap with paraclinical subjects and better correlated to them.

On the whole, the paraclinical course are well received by the students. However, a few more lectures can still be arranged to bridge the gap between the para- and clinical courses.

The clinical importance of the micro biology material is not sufficiently emphasized. It is suggested that a lecture may be divided into 2 halves: the first limiting itself to discussion concerning the core features and the second serves to

expand the topic in views of medical interest and/or recent development.

Pharmacology may also incorporate additional lectures introducing the application of pharmacological principles in a disease-oriented manner.

CLINICAL COURSE

At present, community medicine is not sufficiently emphasized. The introduction of some medical-social case work and a clerkship are of value. Moreover, experience in family practice is of equal importance as hospital-oriented training.

So, it is suggested that a 10-week combined clerkship in both community medicine and family practice should be set up, and rotation should be concurrent with the senior clerkship of medicine and surgery. Also, the students under the combined clerkship will be divided into 2 halves: one half being attached to general practitioners for 5 weeks; the other half doing some assigned medical-social case work. No student should be allowed to sit for the second M.B.,B.S. exam part II in community medicine without satisfactorily completing these assignments.

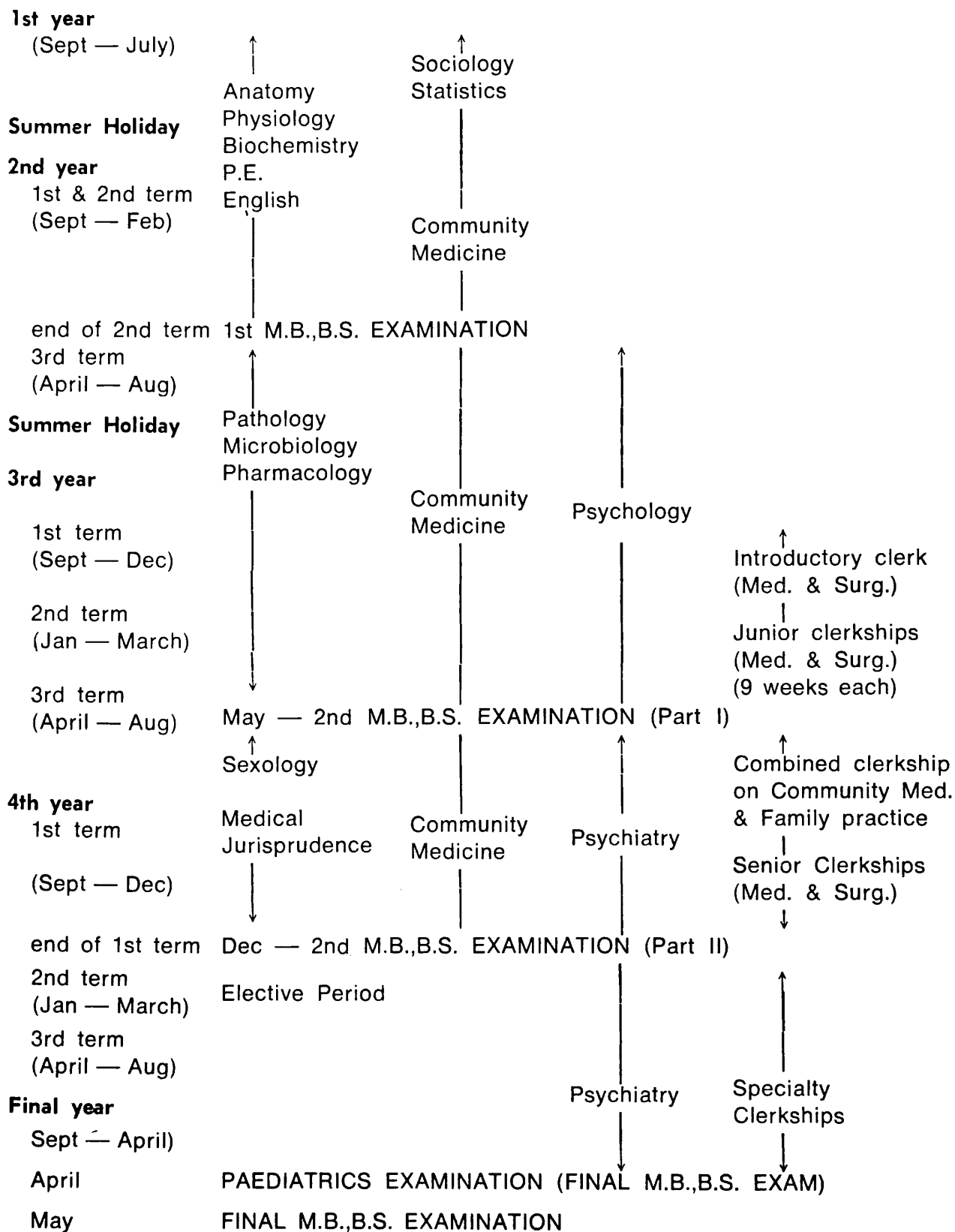
As for medical jurisprudence, many students welcome more teaching in medical ethics.

96% students welcome a new course on *human sexology*. They favour the teaching to be held before specialty clerkship. This seems to be of high significance as such knowledge is indispensable in giving advice to patients with sex problems.

Also, there are some suggestions that the commission would like to present for psychology and psychiatry subjects:

1. Psychology and psychiatry should be coordinated.

POSSIBLE SCHEDULE OF THE MEDICAL CURRICULUM



2. Psychology should start after first M.B.,B.S. exam while psychiatry course follows it up after the second M.B.,B.S. exam.
3. Practical training in the course of psychiatry should start in the senior medical clerkship.
4. The rest of the training in psychiatry would be distributed in the medical and O & G specialty clerkship.

Certain ideas arise from a majority of students concerning clinical clerk appointments. 60% think that some of the surgical specialities [e.g. V.D., ear-nose-throat] and medical specialities [e.g. dermatology] should be conducted during senior clerkship. 80% wants to have more clinical responsibility in their senior and speciality clerkship. A 51week course in the casualty department is suggested by some final year students.

Besides the above, suggestions have been made about the elective period in the clinical course, they are as follows:

1. A 3-month elective period should lie between senior and specialty clerkship.
2. A travel loan fund should be set up specially for academic purposes so as to encourage more students to

make full use of their elective clerkship.

3. The period for specialty clerkships should remain to be one year which is divided equally among clerkships for a. O & G, b. paediatrics, c. surgery and d. medicine. Each of the division should last for 13 weeks.

HOUSEMANSHIP

The duration and rotational system of housemanship appears controversial.

Conclusively speaking, 78% students prefer more than 2 appointments. 64% favour a housemanship of not more than 1 year.

Recently there are growing complaints that many graduate students could not obtain their most favourite housemanship appointment. An increase in number of rotations will be welcomed.

It is hoped that the period and rotation of housemanship could be carefully considered.

CONCLUSION

To conclude, the commission would like to put forward a proposed scheme for the medical curriculum as shown in the diagram.

EXTRACT FROM THE GAZETTE

VOL. XXII NO. 1 TO VOL. XXIII NO. 1

PERSONALIA

Dr. F. C. Y. Cheng, Senior Lecturer in Surgery, and Dr. H. H. Y. Yu, Lecturer in Surgery, attended the ninth Malaysia-Singapore Congress of Medicine held in Kuala Lumpur from September 6 to 8, 1974, and presented papers entitled 'The place of peritoneoscopy in primary carcinoma of the liver' and 'Combined radical surgery and radiotherapy for the treatment of late-stage carcinoma of bladder' respectively.

Dr. C. J. F. L. Chui, Lecturer in Surgery, has been elected a Member of the Royal College of Physicians, United Kingdom.

Dr. K. H. Lee, Senior Lecturer in Obstetrics and Gynaecology, attended the sixth Asian congress of obstetrics and gynaecology held in Kuala Lumpur from July 20 to 27, 1974, and delivered two papers entitled 'The foetal acid-base status in high risk pregnancies' and 'The use of foetal electrocardiogram in the detection of foetal distress' respectively. Dr. Lee represented the Obstetrical and Gynaecological Society of Hong Kong at the general assembly meetings of the Asian Federation of Obstetrics and Gynaecology and was elected chairman of the action committee on perinatal mortality. He has also been appointed a member of the advisory editorial board of the Journal of the Federation.

Dr. (Mrs.) C. H. Teoh-Chan, Senior Lecturer in Microbiology, attended the first intersectional congress of the International Association of Microbiological Societies held in Tokyo from September 1 to 7, 1974, and presented two papers entitled 'A single, rapid method of biotyping of *Escherichia coli* and its use in epidemiology' and 'Soluble antigens

of enteropathogenic *Escherichia coli*' jointly prepared with Dr. K. A. Bettelheim of St. Bartholomew's Hospital, London. Dr. Teoh-Chan has been elected a member of the international sub-committee on phage-typing of staphylococci.

Dr. R. P. Ng, Lecturer in Medicine, has been elected a Member of the Royal College of Physicians, United Kingdom.

Professor G. B. Ong has been invited to be a member of the editorial advisory panel on clinical oncology of the British Association of Surgical Oncology.

Dr. K. K. Yeung, Senior Lecturer in Obstetrics and Gynaecology, attended a seminar on toxaeimias of pregnancy held in Kuala Lumpur on July 20, 1974, and presented a report entitled 'Incidence and methods of management of pregnancy toxaeimias and eclampsia and hypertensive disorders of pregnancy in Hong Kong'. While in Kuala Lumpur, he also attended the sixth Asian congress of obstetrics and gynaecology from July 20 to 27, and also a joint medical seminar on physician's role in family planning from July 27 to 28, which was sponsored by the Singapore Family Planning Association and the Federation of Family Planning Associations of Malaysia in cooperation with the International Planned Parenthood Federation of the Southeast Asian and Oceanic Regions.

Dr. A. Koo, Lecturer in Physiology, attended the eighth European conference on micro-circulation held in Le Touquet, France, from June 17 to 22, 1974. He acted as co-chairman for one session on capillary mem-

brane permeability and presented a paper entitled 'Autoregulatory escape from vasodilator influence in the cerebral microcirculation' at another.

Dr. D. Y. C. Yu, Senior Lecturer in Medicine, has been elected a Fellow of the Royal College of Physicians, Edinburgh.

Dr. F. C. Y. Cheng, Senior Lecturer in Surgery, was invited to visit the National Cancer Centre in Tokyo from February 12 to 16, 1975, and gave a lecture entitled 'The diagnosis and treatment of primary carcinoma of the liver'.

Professor M. J. Colbourne acted as external examiner for the Third Examination for the degrees of M.B., B.S. of the University of Malaya from February 3 to 8, 1975.

Dr. C. H. Leong, Senior Lecturer in Surgery, attended a colloquium in nephrology held in Singapore from November 15 to 17, 1974, and presented a paper entitled 'Bilateral nephrectomy for severe hypertension in chronic renal failure'.

Dr. S. T. K. Lim, Lecturer in Surgery, has passed the final Fellowship Examination of the Royal College of Surgeons of Edinburgh.

Professor F. P. Lisowski has been elected an Overseas Member of the Council of the Anatomical Society of Great Britain and Ireland.

Professor H. K. Ma has been elected Chairman of the Regional Medical Committee of the International Planned Parenthood Federation's East and South East Asia and Oceania Regional Council. She is also a member of the Executive Committee of the Federation's East and South East Asia and Oceania Region. She acted as an overseas examiner for the Part II Membership Examination of the Royal College of Obstetricians and Gynaecologists held in January 1975. She was also appointed Visiting Professor of

the Department of Obstetrics and Gynaecology of McGill University at Montreal General Hospital from January 7 to 11, 1975.

Dr. M. H. Ng, Lecturer in Microbiology, attended an international workshop on Epstein Barr Virus held in the National Cancer Institute, Frederick, Maryland, U.S.A., from February 10 to 13, 1975.

Dr. T. K. W. Ng, Senior Lecturer in Community Medicine, has been awarded the Postgraduate Diploma in Public Administration by the University of London. He has also been elected a Fellow of the Royal Society for the Promotion of Health and a Fellow of the Institute of Health Service Administrators.

Professor G. B. Ong has been awarded the Honorary Fellowship of the Philippine College of Surgeons.

Dr. C. S. Teng, Lecturer in Medicine, has passed the final Membership Examination of the Royal College of Physicians of the United Kingdom.

Dr. W. T. Yan, Lecturer in Medicine, attended the first congress on chest diseases in Vietnam, which was organized by the Vietnamese College of Chest Physicians and held in Saigon from January 17 to 18, 1975, and presented a paper entitled 'Permanent cardiac pacing in Hong Kong'.

Professor M. J. Colbourne attended the first regional workshop in Manila on the teaching of nutrition in schools of medicine from September 24 to 30, 1974.

Dr. W. C. Chan, Reader in Pathology, attended a colloquium on nephrology held in Singapore from November 15 to 18, 1974, and presented a paper entitled 'Lupus nephritis in Hong Kong' which was jointly prepared by the Departments of Pathology and Medicine. He was also on the panel in the workshop on classification of glomerular

diseases and regional cooperation in the study of renal disease during the colloquium.

Professor J. B. Gibson attended the semi-annual meeting of the Pathological Society of Great Britain and Ireland held at the University of Wales, Cardiff, from July 10 to 13, 1974, and the Eleventh International Cancer Congress held in Florence, Italy, from October 20 to 26, 1974.

Dr. K. H. Lam, Lecturer in Surgery, has passed the final Fellowship Examination of the Royal College of Surgeons of Edinburgh.

Dr. R. Lam, Lecturer in Civil Engineering, has been appointed a member of the building and civil engineering industry training board of the Hong Kong Training Council.

Dr. S. K. Lam, Lecturer in Medicine, attended the Fifth World Congress of Gastroenterology from October 13 to 18, 1974, and the Third International Congress of Gastrointestinal Endoscopy from October 19 to 21, 1974, and presented a paper entitled 'Effects of gastro-enterostomy on gastrin release'.

Dr. C. W. Ogle, Senior Lecturer in Pharmacology, attended the Ninth International Congress of the Collegium Internationale Neuropsychopharmacologicum held in Paris from July 7 to 12, 1974, and presented a paper entitled 'The effect of oral doses of propranolol on CNS function in humans'.

Professor D. Todd has been elected a Fellow of the Royal Australasian College of Physicians. He was invited by the Academy of Medicine in Singapore to be its first Visiting Professor from October 28 to November 2, 1974. He also delivered a lecture on 'The lymphomas — clinical aspects' and a public lecture on 'Glucose-6-phosphate dehydrogenase deficiency in Chinese'.

Dr. M. H. Ng, Lecturer in Microbiology, attended the Second International Symposium on Oncogenesis and Herpes Virus held in Nuremberg, Germany, from October 14 to 16, 1974, and read a paper entitled 'Affinity chromatographic isolation of cell-bound EBV specified antigens'.

Dr. A. K. Y. Lee and Dr. K. C. Lam, Senior Lecturers in Medicine, have been elected Fellows of the Royal Australasian College of Physicians.

Professor G. B. Ong has been appointed the Sir Arthur Sims Commonwealth Traveling Professor for 1976 by the Council of the Royal College of Surgeons of England.

Professor D. Todd has been elected a Member of the Royal College of Physicians of London. He has also been appointed a Member of the Blood Transfusion Service Management and a committee member of the British Red Cross Society, Hong Kong Branch.

COUNCIL

Gifts and grants

World Health Organization: a grant of US\$1,000 to Dr. M. H. Ng, Lecturer in Microbiology, for research in respect of the isolation and purification of EBV specified antigens.

Hong Kong Jocksy Club (Charities) Ltd.: a donation of \$10,000 for the Department of Paediatrics to purchase a defibrillator.

The Li Shu Fan Medical Foundation: a Video Tape Recorder with accessories for the Department of Medicine.

A number of the late Professor A. J. S. McFadzean's friends: donations totalling \$157,000 to set up the A. J. S. McFadzean Fund for the establishment of the A. J. S. McFadzean Library in the Department of Medicine and for subsequent acquisitions to

the Library; for grants for research, and for such other purposes related to postgraduate medical education as the Head of the Department of Medicine may decide.

The World Health Foundation: a grant of HK\$35,662 for the continuation of research on viral oncogenesis of nasopharyngeal carcinoma in the Department of Microbiology for the year 1975-76.

The Lawson Tait Medical and Scientific Research Trust: a reaction rate analyzer, at a cost of £5,930 Sterling, to the Department of Biochemistry.

World Health Organization: US\$6,000 to the Department of Pathology for the preparation of a histological classification of tumours of the liver, biliary tract and pancreas.

SENATE

Senate Members:

Mr. Bobby Goh Kim Yeow has been elected by the undergraduates of the Faculty of Medicine to be member of the Senate from November 15, 1974, to August 31, 1975.

Mr. So Ho Pui has been elected member of the Senate for one year from September 1, 1975.

External Examiners

Professor G. M. Maxwell, Professor of Paediatrics at the University of Adelaide, has been appointed external examiner in paediatrics for the M.B.,M.S. Final Examination in January 1975.

Professor A. G. Baikie, Professor of Medicine at the University of Tasmania, in

Medicine for the M.B.,B.S. Final Examination in May 1975.

Professor W. G. Spector, Professor of Pathology and Consultant Pathologist at the St. Bartholomew's Hospital Medical College, in pathology for 1975-77.

Professor K. Burton, Professor of Biochemistry at the University of Newcastle up-on Tyne, in biochemistry for the M.B.,B.S. First Examination for 1975-77.

Professor R. A. H. Kinch, Chairman of the Department of Obstetrics and Gynaecology at McGill University, in obstetrics and gynaecology for 1976.

Professor F. W. O'Grady, Department of Microbiology at the University of Nottingham, in microbiology for 1975-78.

FACULTY OF MEDICINE

Appointment

Patricia Chow Pak Ham, B.Sc., Ph.D. (Hong Kong), appointed Lecturer in Anatomy from September 16, 1974.

Ip Moon Choi, M.Sc. (Hong Kong), Ph.D. (Durham), Lecturer, appointed Senior Lecturer in Anatomy from July 1, 1974.

Anthony Lee Kai Yiu, M.B.,B.S. (Hong Kong), M.R.A.C.P., Lecturer, appointed Senior Lecturer in Medicine from September 1, 1974.

Dennis Li Mou Fun, B.Sc., Ph.D. (Monash), Soter Dai, M.B. (National Taiwan), and Joseph Wong Chi Yan, M.B. (Lingnan), Ph.D. (Hong Kong), appointed Lecturers in Pharmacology from July 24, 1974 and September 1, 1974 respectively.

Loh Tatt Tuck, M.Sc., Ph.D. (Western Australia), appointed Lecturer in Physiology from March 1, 1975.

Mak Lok, M.B.,B.S. (Hong Kong), F.R.C.P.(C.), F.C.A.P., L.M.C.C. (Canada),

appointed temporary Clinical Pathologist in the Hospital Pathology Service from September 16, to December 31, 1974.

Thomas Ng Kah Wai, M.B.,B.S. (Hong Kong), LL.B. (London), D.P.H. (Singapore), D.I.H. (Dundee), M.I.S., part-time Lecturer, appointed Senior Lecturer in Preventive and Social Medicine from January 1, 1975.

Joseph Tam Wing On, B.Sc. (Chinese University of Hong Kong), Ph.D. (California), appointed Lecturer in Biochemistry from October 1, 1974.

To Luen Bik, M.B.,B.S. (Hong Kong), appointed temporary Lecturer in Medicine from December 4, 1974, to September 10, 1975.

Arthur Charles Yau Meng-Choy, M.B.,B.S. (Hong Kong), F.R.C.S. (Edinburgh), F.A.C.S., Professor in the Department of Orthopaedic Surgery, appointed to the Chair of Orthopaedic Surgery from July 1, 1975.

Lam Kui Chun, M.B.,B.S. (Hong Kong), M.R.A.C.P., Lecturer, appointed Senior Lecturer in Medicine from March 1, 1975.

Michael Ma Kin Gay, M.B.,B.S. (Hong Kong), F.R.C.S. (England), Lecturer, appointed Senior Lecturer in Surgery from December 1, 1974.

Mak Lok, M.B.,B.S. (Hong Kong), F.R.C.P.(C.), F.C.A.P., L.M.C.C. (Canada), M.R.C.Uath. (United Kingdom), appointed temporary Clinical Pathologist from February 1, to June 30, 1975.

(Miss) Sung May Lun, M.B.,B.S. (Hong Kong), appointed Lecturer in Obstetrics and Gynaecology from June 1, 1975.

William Tam Yu Kay, M.B.,B.S. (Hong Kong), appointed Lecturer in Psychiatry from March 1, 1975.

Cecil Wilfred Dickens Lewis B.Sc., M.B.,B.S., M.S. (Wales), F.R.C.S., F.R.A.C.S., appointed Director of Postgraduate Medical Education from September 1, 1975, with the personal title of Professor of Medical Education.

(Mrs.) Teoh-Chan Ching Haan, M.B. (Lingnan), Ph.D. (Hong Kong), Dip.Bact. (Manchester), M.R.C.Path., Senior Lecturer, appointed Reader in Microbiology from July 1, 1975.

Paul Yue Cheung Kong, M.B.,B.S. (Hong Kong), D.C.H. (London), F.R.C.S. (England and Edinburgh), F.A.C.S., Senior Lecturer, appointed Reader in Surgery from July 1, 1975.

John William Magarey Lawton, M.B.,B.S., M.D. (Adelaide), M.R.C.P. (United Kingdom), appointed Senior Lecturer in Pathology from September 15, 1975.

Low Weng Djin, M.Sc., Ph.D. (Hong Kong), Lecturer, appointed Senior Lecturer in Anatomy from July 1, 1975.

Robert Gerald Choa, M.B.,B.S. (Newcastle-upon-Tyne), temporary Lecturer, appointed Lecturer in Surgery from May 1, 1975.

Ho Ho Cheong, M.B.,B.S. (Hong Kong), appointed Clinical Pathologist in the Department of Pathology from July 1, 1975.

Paul Ko Yiu Shum, M.B.,B.S. (New South Wales), appointed Lecturer in Paediatrics from June 23, 1975.

(Mrs.) Veronica Lam Min Sien, B.Sc., Ph.D. (London), Demonstrator, appointed Assistant Lecturer in Biochemistry from May 1, 1975.

Lam Wah Kit, M.B.,B.S. (Hong Kong), appointed Lecturer in Medicine from July 1, 1975.

(Miss) Liu Ka Ling, M.B.,B.S. (Hong Kong), appointed temporary Lecturer in Medicine for one year from July 1, 1975.

Vijay Raj, M.B.,B.S. (Delhi), appointed Clinical Pathologist in the Department of Pathology from July 1, 1975.

Joseph Tsui King Ching, M.B.,B.S. (Hong Kong), appointed Lecturer in Medicine from July 1, 1975.

William Ignace Wei, M.B.,B.S. (Hong Kong), appointed Lecturer in Surgery from July 1, 1975.

John Wong, B.Sc. (Med.), M.B.,B.S., Ph.D. (Sydney), F.R.A.C.S., appointed Lecturer in Surgery from June 1, 1975.

Patrick Wong Yee Ding, B.Sc. (London), M.A., Ph.D. (Cambridge), A.R.I.C., appointed Lecturer in Physiology from July 1, 1975.

Yau Kin Pong, M.B.,B.S. (Hong Kong), appointed Lecturer in Community Medicine from July 1, 1975.

Election of Dean

Professor J. B. Gibson has been re-elected Dean of the Faculty of Medicine for three years from April 24, 1975.

Prizes

The follow prizes have been awarded:

Anderson Memorial Gold Medel: (Miss) Liu Ka Ling; Yan Tung Wing (*proxime accessit*)

Chan Kai Ming Prize: Ignatius Cheng Kum Po

C. P. Fong Gold Medal in Medicine: Ignatius Cheng Kum Po

R. M. Gibson Gold Medal in Paediatrics: Dora Hsu Tune Man

Hong Kong University Alumni Prize: Cheng Chun Ho

Gordon King Prize in Obstetrics and Gynaecology: Ho Pak Chung

Mun Gold Medal and Prize in Psychiatry: Yan Tung Wing.

Research in the Department of Microbiology

A contract was awarded to the Department of Microbiology for the year 1975 by the Special Virus Cancer Programme of the National Cancer Institute, Frederick, Maryland, U.S.A. for the study of Epstein Barr Virus specified antigens.

Expiry of contract

Dr. P. K. Das, Lecturer in Biochemistry, on October 5, 1974.

Resignation

Dr. L. Mak, temporary Clinical Pathologist in the Department of Pathology, from December 4, 1974.

Dr. D. W. H. Chan, Lecturer in Surgery, on April 30, 1975.

Dr. A. S. P. Hua, Lecturer in Medicine, on January 31, 1975.

Dr. K. H. Lee, Senior Lecturer in Obstetrics and Gynaecology, on February 28, 1975.

Dr. P. W. W. Lui, Lecturer in Surgery, on June 30, 1975.

Dr. V. Y. H. Yu, Lecturer in Paediatrics, on January 14, 1975.

Professor G. M. Kneebone, Professor of Paediatrics, from June 29, 1975.

Dr. L. Mak, Temporary Clinical Pathologist in the Department of Pathology, from June 5, 1975.

Dr. Helen W. L. Ng, Lecturer in Obstetrics and Gynaecology, from July 31, 1975.

Dr. Shih Chi-ching, Lecturer in Pathology, from July 15, 1975.

Retirement

Professor A. R. Hodgson, O.B.E., Professor of Orthopaedic Surgery, from July 1, 1975.

GIFTS AND BENEFACTIONS

China Medical Board: US\$200,000, for medical research.

Mrs. Kwok On: \$100,000 in memory of her late husband, for research in haematology in the Department of Medicine.

Dr. C. Y. Lai: \$4,000, to enhance the value of the Ho Kam Tong Prize in Preventive and Social Medicine.

Dr. Raymond Yang: an extension of the Raymond Yang Medical Bursary of \$500 per annum, 1974-77.

Standard Sing Tao 'Fat Choy' Drive Committee: \$50,000 to be added to the Standard/Sing Tao 'Fat Choy' Drive Medical Students' Loan Fund.

Messrs. D. Yee and C. W. Yee: \$150,000 for the establishment of Yee Sui Cheong Memorial Bursaries in the Faculty of Medicine.

ARTHUR CHARLES YAU MENG-CHOY,

M.B.,B.S. (Hong Kong), F.R.C.S. (Edinburgh), F.A.C.S.

Professor A. C. M. C. Yau has been appointed to the Chair of Orthopaedic Surgery from July 1, 1975.

Professor Yau was born in Kuala Lumpur and educated at the University of Hong Kong, where he obtained the degrees of M.B.,B.S. in 1956.

After his graduation, Professor Yau was appointed houseman in the Queen Mary Hospital and later in the Ruttonjee Sanatorium where he was subsequently appointed medical officer. He returned to the Queen Mary Hospital as medical officer in surgery in 1958, medical officer in orthopaedic surgery in 1959, medical officer-in-charge in the casualty department in 1962, and again as medical officer in orthopaedic surgery in 1963. He was appointed acting specialist in orthopaedic surgery in Queen Elizabeth Hospital from 1964 to 1966.

Professor Yau first joined the staff of the University as part-time Lecturer in Orthopaedic Surgery in 1962. He took up

appointment as senior lecturer in 1967, and was promoted to a readership in 1970. He was appointed to a personal chair in July 1972. From May to October, 1974, he served as Acting Dean of the Faculty of Medicine.

Professor Yau was elected a Fellow of the Royal College of Surgeons of Edinburgh in 1962, and a Fellow of the American College of Surgeons in 1971. He is an orthopaedic consultant at the Ruttonjee Sanatorium and the Nethersole Hospital, an executive committee member, honorary medical superintendent and orthopaedic consultant at the Duchess of Kent Children's Orthopaedic Hospital. He was a member of the Hong Kong Medical Council during the period of his acting deanship of the Faculty of Medicine.

Professor Yau's current research interests are: the correction of severe spinal deformities, experimental scoliosis in animals, and growth studies in fused children's spines. He has published many articles in learned journals.

TEOH-CHAN CHING-HAAN

M.B. (Lingnan), Ph.D. (Hong Kong), Dip. Bact. (Manchester), M.R.C.Path. (England)

Dr. C. H. Toeh-Chan, Senior Lecturer in Microbiology, has been appointed Reader in Microbiology from July 1, 1975.

Born in Hong Kong, Dr. Teoh-Chan received her medical education at Lingnan University in Canton and obtained the degree of Bachelor of Medicine in 1952.

After graduation, Dr. Toeh-Chan joined the Department of Pathology and Bacteriology of the University as Demonstrator in Bacteriology and became Assistant Lecturer in Bacteriology in 1960. She was promoted to a lectureship in 1965 and senior lectureship in 1969 in the Department of Microbiology.

In 1959, Dr. Toeh-Chan was awarded the Sino-British Fellowship and left for England to further her studies. The following year she obtained the Diploma in Bacteriology from the University of Manchester. In 1967, she was awarded the degree of Doctor of Philosophy in microbiology by the University. She is a Member of the Royal College of Pathologists of England.

Her current research interests are mainly in (1) Bacterial typing for the investigation and control of hospital cross-infection and the study of the epidemiology of communicable diseases, (2) Activity of antibiotics with aminophylline and their clinical applications, and (3) Interactions of various bacterial products and pathogenic fungi.

PAUL YUE CHEUNG KONG

M.B.,B.S. (Hong Kong), F.R.C.S. (England and Edinburgh), D.C.H. (London), F.A.C.S.

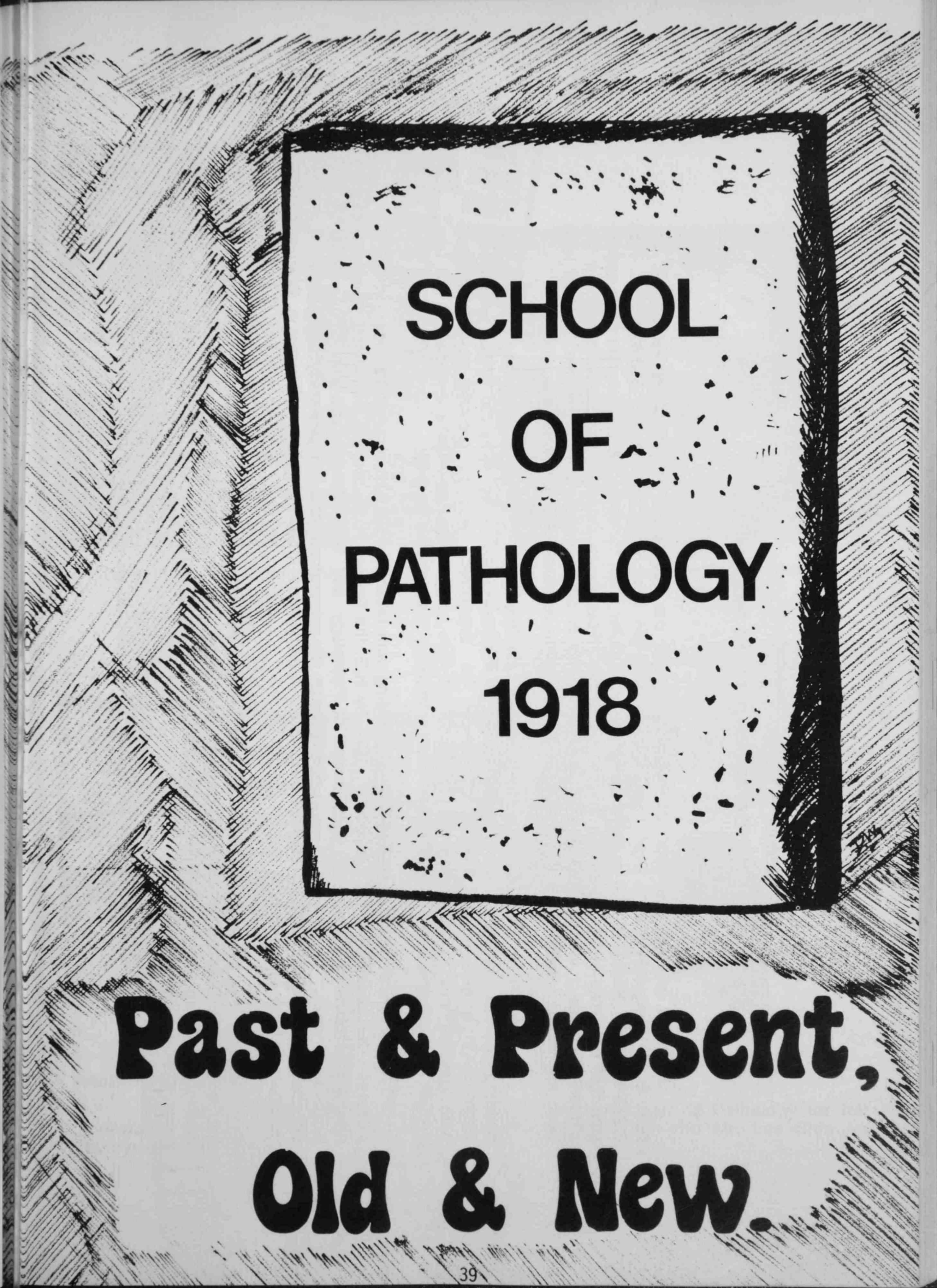
Dr. P. C. K. Yue, Senior Lecturer in Surgery, has been appointed Reader in Surgery from July 1, 1975.

Born in Hong Kong, Dr. Yue was educated at the University of Hong Kong where he obtained the degrees of M.B.,B.S. in 1960. He joined the Queen Mary Hospital immediately after graduation as a house physician and then as a house surgeon in the Professorial Units. He became a medical and health officer and served in the Casualty Department from 1961 to 1962, and subsequently in the Anaesthetic Unit, the Paediatric Unit, the University Surgical Unit, and the Orthopaedic Unit from 1962 to 1964. During the years 1965 to 1967, he was awarded a Commonwealth Scholarship and went to the United Kingdom for post-graduate study in surgery and training in paediatric surgery. While receiving his overseas training he was appointed Honorary Surgical Registrar to Professor A. W. Wilkinson at the Hospital for Sick Children, Great Ormond Street, London, from 1966 to 1967.

Dr. Yue resumed his duties in the University Surgical Unit as a medical and

health officer upon his return to Hong Kong in 1967. In 1968, he joined the staff of the University as Lecturer in Surgery and was promoted to a senior lectureship in 1970. During this period he has developed within the University Department of Surgery, a paediatric surgical service which offers neonatal surgical emergency service every day. In 1967, he obtained the Diploma in Child Health from the Royal College of Surgeons of England and the Royal College of Physicians of London. Dr. Yue became a Fellow of the Royal College of Surgeons of England and Edinburgh in 1966 and a Fellow of the American College of Surgeons in 1972. He has been an honorary consultant paediatric surgeon at the Alice Ho Miu Ling Nethersole Hospital since 1974. He is a member of the British Association of Paediatric Surgeons, the Pacific Association of Paediatric Surgeons and a founder member of the Asian Association of Paediatric Surgeons.

His main research interests are in the field of paediatric surgery, especially in neonatal surgical problems, Hirschsprung's disease, effect of neonatal surgery on growth, and the pattern of congenital malformation in Chinese.



**SCHOOL
OF
PATHOLOGY
1918**

**Past & Present,
Old & New.**

DEPARTMENT OF PATHOLOGY

Founded in 1919, the Dept. of Pathology, under the successive efforts of its Professors, viz. Prof. C. Y. Wang (1919-1931), Prof. Leslie Davies (1937-39), Prof. R. C. Robertson (1939-42), P. C. Hou (1948-60), Prof. Kirk (1960-62) and the present Chair holder Prof. Gibson, has not forgotten the expansion that occurred in this field over the years and the necessity to maintain continuity throughout the students' course. In fact, like pathology departments in other places, it has become, as had long been appreciated, involved in hospital work as well as in research and in teaching students.

The move from the University compound to the University Pathology Building (the present 'old building) in 1958 was more than a simple matter of re-housing and taking away old fittings and setting them up in a new place. A new function of the department was to provide modern clinical pathology services to the Queen Mary Hospital. In this respect, special thanks are due to the late Prof. P. C. Hou who had put tremendous effort in making this scheme possible.

Action on a new Clinical Pathology Building was taken in 1970 to accommodate more medical students. Its opening on 6th November, 1974 by H.E. the Governor, Sir Murray Maclehoze, marked a new era for both the University Department of Pathology and Microbiology and the Queen Mary Hospital services. Being a joint enterprise between the government and the University functionally, it permits financial economics. Besides providing valuable aids in teaching, it also helps in keeping medical services up-to-date.

Indeed, it is by combining hospital with teaching work that the department helps to bridge the gap between preclinical and clinical subjects, a bridge that is beneficial only when the student manages to keep alive his critical faculty amid the welter of new facts that confront him.



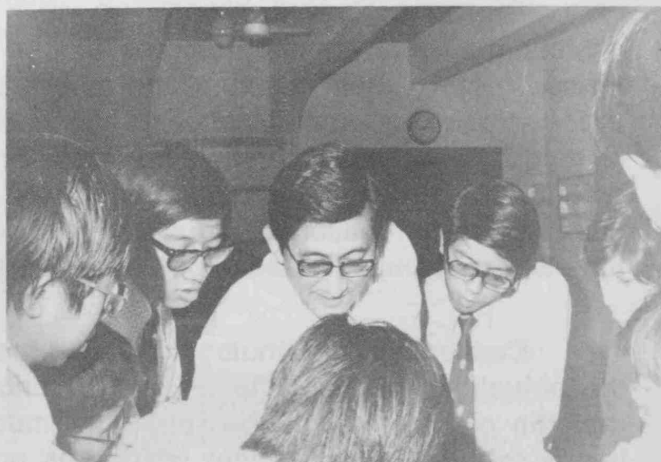
Demolition of the old Autopsy room.



The present autopsy room.



One of the laboratories.



Dr. W. C. Chan in a discussion with his students.

Acknowledgement:

The editors wish to thank the Secretary of the Department of Pathology for her assistance in collection of information, and Mr. Szeto Yiu Kwai and Mr. Lee Shin for taking the photographs.

INTRODUCTION

By Professor J. B. GIBSON

It is some time now since Elixir visited the Department of Pathology. The intervening years have seen great improvements in our quarters and in the range of services we provide for hospital work. In particular, the facilities for students to see autopsies are vastly improved now on what they were. In the setting of the autopsy, where diagnosis and treatment can be critically assessed, conjectures can be confronted by facts. However complex medicine may have become, the autopsy remains, in my view, the most effective single exercise in learning to combine book knowledge with clinical experience.

Pathology is the systematised study of diseases, how they start and how they progress. It aims to arrange knowledge about diseases in a logical way and to establish some principles to help our understanding of how the body responds to disease. As the student's clinical experience grows, he can organise it in a coherent way on the basis of Pathology and find some principles to guide him also when he encounters unfamiliar situations. In pathological terms he will be thinking in concepts which are international in currency and which are a road into the whole vast territory of medical knowledge.

One of the simplest ways in which the Pathology course introduces a student to clinical medicine is that it forces him to think for the first time in standard medical terms, to learn their meaning and to use them himself with confidence to communicate precise ideas. Communication is the basis of learning and of continuing to learn, and in medicine we must continue to learn throughout life if we are not to be left behind. Without the rational basis that pathology provides — without if you like the opportunities it gives for reasoned argument — medicine would degenerate into the repetition of time-worn dogmas varied empirically by the gambler's methods of trial and error.

Conversely if pathology is to be useful in this way, it must remain in touch with the actualities of medicine as it is practiced nowadays. That is why it seems to me that the place to teach the subject to medical students is in a hospital and why I am happy to head a department which has practical hospital work to do. This is certainly one of the best ways of drawing out the talents of students (which is what the word education means).

We are little involved in basic research, though our record in this respect is not negligible. Indeed basic research in medicine is nowadays a very professional area in which there is not much room for any but specialists. The kind of research which seems most appropriate to Hong Kong at this time is still a critical assessment of local conditions of disease in the light of modern knowledge — applied research, one might say. In this field we are quite heavily involved. Teaching institutions like ours have valuable contributions to make to the community in applying their skills to solving local problems in a practical way.

Much research work carried out in university medical departments has little immediate or direct bearing on the content of undergraduate teaching, but it does affect the spirit of teaching. Some of the value of research in a department like ours lies in the habits of mind that research requires and inculcates — in fact the characteristics of the scholar. These include the critical assessment of received facts even when they seem well authenticated; a determination to find the true answers to problems, or at least an answer as near to the truth as is humanly possible the ability to accept and benefit in this search from the criticism of one's peers and to review one's own contributions without bias and with objectivity to finish the task with the highest level of technical perfection of which you are capable; and to be content with nothing less, however demanding the search may be.

The element of variability is implicit in human situations and is much greater in problems of applied than in problems of basic research, but the same principles of scholarship apply to work in them both. Applied research, however, cannot be entirely an intellectual pursuit. In any case it seems to me that a doctor has some responsibility in choosing a subject to which he can usefully devote his time and talents — in fact, to tackle, for his major interest at least, a problem of practical importance and not something that is either trivial or insoluble.

It is not as easy to select such problems as one might imagine, for much of the knowledge of life and death is still far beyond the reach of even the most sophisticated and elaborate of man's contrivances. But there are still many medical questions here calling out for an answer and capable of solution. If attacked with determination. We have enough work ahead of us for a long time to come.





PROF. J. B. GIBSON

M.D., F.R.C.P. (Edin.), F.R.C. Path;
F.R.C. Path Aust.

"Don't panic! an average medical student can pass his examinations. Enjoy life now because you'll never be as free of responsibilities again!" Those are the words of Prof. Gibson when asked to give an advice to the students.

Prof. Gibson first came to Hong Kong in 1963 as the Prof. of Pathology and has been a busy and hard-working man since then, both as the Prof. of Pathology and as the Dean of the Medical Faculty since 1972. Over these twelve years, he has always enjoyed working here and he finds his staff very agreeable colleagues and the department a happy one. He is especially proud of witnessing the expansion of the Pathology

Department and the setting up of the Hospital clinical Pathology Building in 1974; the original plan of the new Pathology building was laid down by him. Prof. hopes that his department will develop in such a way that there will be more time to carry out research work; as the department at present is pre-occupied with hospital service. Though a busy man himself, he still carries out research on cancer of liver, in collaboration with WHO.

Prof. Gibson is married, leading a happy life and has a son in London who is going to be an architect. He likes sports and was very sporty while he was a medical student. Now, Prof. still plays squash, and in winter, he likes walking along the countryside.

DR. W. C. CHAN

M.B.,B.S. (H.K.), PhD (U.C.H. LONDON),
M.R.C. PATH.



"Students should be more concerned with the people they come into contact with and be more kind and compassionate to patients when they become doctors."

Dr. Chan finished his internship in 1957 and joined the Department as demonstrator before he left for England, where he obtained his PhD degree. After spending one year at Glasgow as research assistant, he rejoined the Department in 1963 and became reader 2 years ago.

Over these years of service, Dr. Chan witnessed the gradual improvement of facili-

ties in the Department; and the more consciousness of the students. It is his hope that staff be increased on the government side to cater for hospital work; and to have more medical graduates joining the Department. He likes to integrate routine work as part of his research, his main field of interest being on kidney disease and environmental carcinogens, notably nitrosamine.

Dr. Chan is married and has two sons. He lives quite a quiet life and enjoys music and light-reading.



DR. JOHN W. M. LAWTON

M.B.,B.S. (Adelaide), M.D. (Adelaide),
M.R.C.P. (Edinburgh)

Dr. Lawton got his M.B., B.S. in 1963 and obtained his M.D. degree in 1968; both at the University of Adelaide, South Australia. After two years in the University of Michigan (1970-72) he went to Edinburgh spending another two years in clinical immunology

A sound foundation, a step-by step approach, an unassuming attitude are Dr. Chou's guidelines in life and which he has applied persistently to his medical career. Dr. Chou received his education in quite a variety of places — his primary schooling in China, secondary schooling in Hong Kong, got his medical degree in Taiwan, and Ph.D. degree from H.K.U. He then worked in U.S. and Canada for a few years before he returned to the Path. Dept. in H.K.U. Dr. Chou enjoys teaching he is delighted to see that with the shift of economic background, medical education is no longer the privilege of the richer few. Dr. Chou likes music and oil-painting. As many of us may already know, Mrs Chou is one of our Microbiology staff so it will be a double loss to us when his whole family leaves for Australia where Dr. Chou will work in the Melbourne University.



DR. LAU WU PUI CHEE
M.B.,B.S. (H.K.)

concerning blood transfusion and cellular immunology with special emphasis on lymphocyte function.

Dr. Lawton joined the department in Sept., 1975 as a senior lecturer, head of the immunology unit. He plans to introduce audiovisual aids for teaching immunology. He is setting up laboratory facilities for research and to provide a hospital clinical immunology service in the future. He feels the department has a great potential for immunology development. His most recent work is on immunological competence of recurrent infections, and on assaying transfer factor from leucocyte extract.

Dr. Lawton is married and has two children. He spends much of his spare time in studying Chinese culture and learning Chinese. Tennis, squash, swimming and sailing are his favourite sports. He also likes instrumental music and plays the violin.



DR. S. T. CHOU

M.B.N.D.M.C. (Taiwan); Ph.D. (H.K.);
L.M.C.C.; M.R.C. Path

(Editors' Note: Much to our regret, Dr. Chou has left for Australia in Dec. 1975 We'd like to take this opportunity to wish him every success in the future.)

After graduation in 1966, Dr. Wu worked for 3 years in clinical medicine. In 1970, prompted by growing interest in pathology, she joined this department. Dr. Wu has just come back from England where she has worked in 'Islet cells Transplantation in diabetes mellitus' for her MRC Path degree. Her current research is on experimental hypertension. Dr. Wu is married and is leading a happy family life with her husband and 3 kids. Her main non-medical interest is photography, quite uncommon among lady doctors these days.



DR. HO (WATT), FAITH
M.B., B.S. (Hon.); D. Obst. (R.C.O.G.);
M.R.C.Path.

Dr. Watt was graduated from the University of Hong Kong in 1963 with a M.B., B.S. Honours degree. She joined the department in Jan. 1969 and is now working on the lymphoid and haemopoietic systems, with particular interest in lymphomas. Dr. Watt is married with two children. She is interested in classical music and picniking.

In her opinion, the department is up to her expectations and the relationships between the staff is good. Moreover, Dr. Watt feels that it is good that students nowadays show greater social consciousness, but she feels that they should have more original thinking in their academic studies rather than relying solely on memory work.



DR. H. J. LIN
B.A. Col.; M.Sc., D.Sc. (Harv.)

"Research is my hobby."

Dr. Lin received her education abroad, being a graduate of the Columbia University and having her post-graduate studies at Harvard University where she received her D.Sc. degree. After spending one year at the Academia Sinica, Taipei, she came to Hong Kong and joined the Department in 1968. She is now head of the Clinical Biochemistry Unit, with a laboratory which is comparable to the top ranking ones in America.

Dr. Lin likes research work very much, her recent research work being on lipids in Wolman's disease and T-7 bacteriophage. She also likes travelling.



DR. LILY MA
Dip. Med. (Tientsin Med. Coll.)

Dr. Ma is a graduate of Tientsin University in 1960. She worked as a physician for two years before she came to Hong Kong and joined the department. In 1968 she is a lecturer on and interested in research on food poisoning and liver cancer. Dr. Ma finds that the standard of students with a class ranges widely, and she hopes that the better ones would help their weaker classmates. She feels that a woman should not be confined to the home in order to keep up with the rapid changes in society. Dr. Ma is married with 3 children. She reserves the week-end for her family.



DR. J. HO
M.Sc: (McGill), Dip. Med. (Peking Med. Coll.)

Dr. Ho graduated from the Peking Medical College in 1965 and obtained her M.Sc. degree at the McGill University in Canada. She joined the department in Jan., 1971 as a clinical pathologist; and passed the American Board of Pathology in 1974. Her recent research is on hormone-dependency of liver tumors.

Dr. Ho is married and has 2 children. She leads a quiet family life and likes badminton, swimming and music.



DR. C. W. CHAN
M.B.,B.S. (H.K.)
M.R.C.Path

Dr. Chan worked for 8 years in the Department. He thinks that students nowadays are more progressive and the gap between teachers and students is narrowed. He declines to give a general advice to students as they are fully capable of their own judgement in this changing world. He welcomes friendly discussions with them.

In research, he is mainly engaged in a WHO project on prostatic carcinoma. He is interested in dramatic art.



DR. NG WING LING
M.B.,B.S. (H.K.)

'I find teaching pathology a rather stimulating experience. However, most students are too withdrawn. They should have more initiatives in acquiring knowledge.' Dr. W. L. Ng is of the above opinion when he talks of his experience since he joined the dept. in 1972 after graduating from H.K.U. His current interest is on thyroid cancer and congenital heart disease and he intends to go to U.K. in 1977 for further studies.

Dr. Ng is married and is now the father of a 9-month old little girl. His hobbies are woodwork and motor car mechanics.



DR. C. W. CHOW
M.B.,B.S. (H.K.)

Dr. Chow was a U-hallite in his student days. He joined the department in 1970, and spent his clinical training leave in the Royal Children's Hospital in Melbourne. Dr. Chow is especially interested in paediatric pathology.

As students who have been taught by Dr. Chow may already know, he likes to lead students to think and arrive at a conclusion themselves, rather than to tell them directly. Dr. Chow emphasises mutual respect between student and staff.



DR. RAJ V
M.B.,B.S. (Delhi)

'Pathology is the fundamental of medicine.'

Dr. Raj graduated from the University of Delhi and joined the department in July 1975. He is engaged in clinical pathology.

Dr. Raj is keen on travelling and has visited many places all over the world. It offers him the chance of meeting a great variety of people and hence a better understanding of human relationship. Dr. Raj is interested in swimming and table-tennis.



DR. H. C. HO
M.B.,B.S. (H.K.)

'Students should not neglect the pre-clinical course and practical experience is very important in the clinical years. Moreover, students develop interests beyond the medical field in order that life as a medical student would be less monotonous.' ——— these are the opinions from Dr. Ho who has just finished his internship and joined the department in July this year.

Besides pathology, Dr. Ho likes reading and sports.

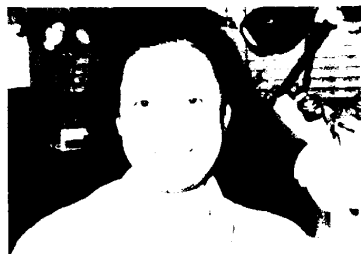
DR. K. F. SO
Dip. Med.
(South China)



Dr. So was born in Mauritius. He returned to China for his medical education. Graduated from Ling Nan U. in 1953, he then worked in Sian Medical College as a pathologist until he came to Hong Kong in 1972. Dr. So chose pathology because being generalised, it can accommodate its service to many fields and the needs of the country and the people. He emphasizes the importance of an all-round education. Dr. So is married and his wife is also a doctor. He spends most of his spare time on improving his English and also studying pathology.

DR. HSU CHIH

B.Sc. (St. John's);
Dip Med. (Shanghai)



Dr. Hsu graduated in Shanghai 2nd Medical School and joined the department in 1968. Since then, she has been greatly encouraged to see the department being enlarged and becoming much better equipped with modern sophisticated instruments. She is now in charge of the cytology section.

Dr. Hsu is married and has a happy and simple family with a son studying in Canada. In her spare time, she likes to study and hold dinner parties at home.

MR. J. D. ROBINSON

L.I.Biol., H.N.C.,
A.I.M.L.T.



Mr. Robinson joined the department in 1971 as hospital biochemist in clinical biochemistry section. He takes pride in the work of his laboratory, for its accuracy ranks among the top 10% of in an American

College of Pathologist quality control scheme.

He is actively involved in research projects: namely, in devising a new biochemical methods in diagnosing liver cirrhosis; and a diagnostic test for carrier of genetic dystrophic muscular disease.

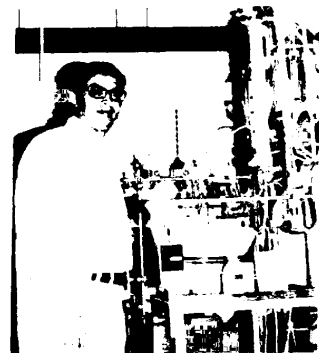


DR. FRANCIS ANTHONY WARD
F.R.C. Path

'Students should continue to learn the English Language because it is the most important means of communication in the world today and it will remain important for the foreseeable futures, and they must learn the language in both its written and spoken form because all the great literature and the great scientific advances in the world are published in the English Language.' This is the advice given to the medical students by Dr. Ward, who came from Ireland. He joined the department in 1972. Since then he has enjoyed his work here, which is mainly for hospital service and training technologists. Dr. Ward's main field of interest is haematology.

DR. H. C. LAI

Ph.D. (H.K.);
Dip. Med. (Lingnan)



Dr. Lai graduated from Ling Nan U. in 1954. He came to Hong Kong in 1962 when he began to work on hematology — his main field of interest ever since. He has also worked in Miami U. in the United States and St. Georges Hospital in London. Dr. Lai is glad to see the development of the Hematology section from its rather primitive precursor to the present stage, but he is still striving for further improvement. Dr. Lai enjoys sports such as swimming and tennis. Moreover, he holds the Blue Belt in Takondo, the martial art which emphasizes "tolerance".

EPIDEMIOLOGY OF NASOPHARYNGEAL CARCINOMA (NPC)¹

By Dr. H. C. HO²

I am grateful to the Faculty of Medicine of this University and Professor G. B. Ong of the University's Dept. of Surgery for the personal honour in inviting me to deliver this 6th Digby Memorial Lecture. Much more than that I am grateful for the opportunity that it has given me to acknowledge the debt that I owe to my former professor, the late Kenelm Digby. It is the duty of the lecturer to bring something of freshness to the memory of this great teacher and scientist. For me this is not at all difficult, because I was one of his former students. In an era in this part of the world where learning was traditionally acquired by rote and detailed taking of lecture notes was the rule of the day, it was both stimulating and refreshing to meet a teacher in the person of Digby who taught instead that one should observe and find things out for oneself and not to take readily for granted what was said in text-books or by one's teachers including himself. Although he suffered no fools, he always enjoyed lively arguments with his students at his rounds. He would ungrudgingly give credits to them if they scored a point. He had a very systematic mind and an unparalleled gift of putting across essentials in order of priority. As a surgeon he had the reputation of a slow operator, but in the opinion of those who had assisted him he was slow but sure, demonstrating clearly to them each step of the operation. He had a passion for doubt and the unknown. The search for truth was his philosophy of life and obsession. It was this quality of his that influenced me most and started me on the search for the cause of the high frequency of nasopharyngeal carcinoma in southern Chinese, a disease he investigated with great fervour throughout his clinical career in Hong

Kong. The papers he published on the subject were remarkable for the astuteness of the observations made and the lucidity of their presentation. In choosing the subject "Epidemiology of Nasopharyngeal Carcinoma" for this lecture it is my intention to refresh our memory of him as well as add freshness to it, for he was foremost among the early tillers of the obdurate grounds of this cancer. I only hope that what I am going to say today will not make him turn in his grave and utter aloud his usual remark when one of his students made an erroneous observation, "one mark off".

HISTORICAL BACKGROUND OF NPC

A study of early cases may reveal information on whether NPC is a product of our environment. Based on the works of Wells (1963, 1964), Krogman (1940), Smith and Dawson (1924), and Derry (1909), Clifford (1970) stated that the oldest pathological specimens of NPC at present known were derived from inhabitants of Northeast Africa and the Middle East from the period 3500-3000 B.C. Reviewing the evidences presented, Ho (1972a), however, disagreed. He was of the opinion that only one of the Romano-Egyptian cases described by Smith and Dawson (1924) could have been an example of NPC origin. The case referred to was reported to be a male pre-Christian Nubian (ca. fourth to sixth century, A.D.) with extensive destruction of the base of skull from the cribiform plate to the basi-occiput almost reaching the foramen magnum. Such a lesion could have been caused by a carcinoma arising in the sphenoid sinus or the nasopharynx.

In Europe, Durand-Fardel (1837) is generally credited as the one who gave the first description of a case of nasopharyngeal cancer based on clinical evidence. It was

1. The sixth Digby Memorial Lecture delivered on November 7, 1974 at the University of Hong Kong.
2. Medical and Health Department Institute of Radiology, Hong Kong.

Michaux (1845) who reported the first histologically proven case.

Nasopharyngeal cancer has been known at least since the early part of this century in China as 'Kwangtung tumor' because it occurs with an unusually high frequency in Kwangtung. Ho (1972a) in his search for a description of the disease in early Chinese medical writings could only find a fatal disease called 'shih ying', also known as 'shih yung', both meaning literally loss of nutrition, described in *The Encyclopaedia of Chinese Medical Terms* edited by Wu (1921) to have a clinical picture quite typical of metastatic carcinomatous, and not tuberculous, cervical lymph nodes. The lumps were described as appearing first high up in the neck. Since there was no description of any symptoms or signs related to other organs in the head and neck it may be presumed that they had not been observed. Since NPC is much more likely to give rise to upper cervical nodal metastases associated with a silent, occult primary tumor than the other head and neck cancers, the description of the clinical picture of 'shih ying' fits well with that of the 'mainly metastatic type' of NPC (Ho, 1970). However, no mention was made in the encyclopaedia as to when the disease was first described. The apparent lack of a full description of NPC in early Chinese medical writing is possibly due to the prevalence of the disease being largely confined to the south, whereas practically all the early writings were written by physicians in northern and central China (Ho, 1974).

Although Todd (1921) commented on the high frequency of cancer of the neck glands and that probably many of them were secondary to malignant foci in the posterior nares, ethmoidal cells or some other parts of the head in his description of 103 cases of cervical adenopathy from Kung Yee Medical College and Hospital in Canton, it was Digby et al. (1930) who had no doubts as to the origin of these tumours in the nasopharyngeal epithelium and were the first

to draw attention to the unusual frequency of NPC among Chinese in Hong Kong and over large parts of China. They gave a remarkably detailed description of the clinical and pathological features in 103 cases. Digby also held the view that lymphoepithelioma was just a histological variant of squamous carcinoma, rebelling against the vogue at the time.

According to Shanmugaratnam (1967) Finlayson stated in the Annual Report for the Singapore Department of Pathology for 1924 that 40 cancers were diagnosed at necropsy at the Tan Tock Seng Hospital during the year and that 5 of these were 'carcinoma of the nasopharynx'. His finding was the first indication that we had of the high relative frequency of the cancer in Chinese in Southeast Asia.

Before 1962 there was no real attempt to study the epidemiology of NPC. The medical profession seemed to be quite satisfied with the hypothesis postulated by Dobson (1924) that the high frequency of nasopharyngeal cancer in Chinese was related to the poorly ventilated houses in which they lived and inhaled much of the carcinogen-laden domestic smoke. This was later disputed by Ho (1967, 1972a) when he discovered that the frequency of NPC in Chinese fisherfolks who lived practically all their lives in boats and cooked their food in the open was actually significantly higher than the rest of the Chinese population in Hong Kong, the majority of whom lived in congested dwellings on land. Furthermore, among these fisherfolks it was always the females who did the cooking, and yet the disease had a male preponderance as in the case of Chinese land-dwellers. In fact, NPC develop in males much more frequently than females irrespective of geography or ethnic origin, and it is the housewives who are most affected by household smoke or inhalants. Since then work in Hong Kong at least has been confined to looking for possible carcinogenic factors in traditional southern Chinese diet.

Credit for initiating multi-national epidemiological studies of the cancer must go to the International Union Against Cancer (UICC), which organized the first Symposium on Nasopharyngeal Cancer held in Singapore in 1964. The proceedings were published in 1967 as Vol. I of UICC Monograph Series. Subsequently, the task of promoting multi-national collaborative epidemiological studies was taken up by the International Agency for Research on Cancer (IARC) with the active support of the National Cancer Institute (NCI) of U.S.A. Hong Kong has been playing a prominent part in these collaborative studies since 1968.

Up to 1966 NPC has only stimulated the interest of epidemiologists and geneticists, but when Old et al. (1966) discovered in the sera of NPC patients precipitating antibodies similar to those present in Burkitt's lymphoma sera, the oncovirologists and immunologists became interested and joined in the study, which has led now to the discovery of evidence that the Epstein-Barr virus or a herpesvirus very similar to it may play a role in the genesis of NPC.

Since there is a wide variation in the risk of NPC in different population groups, a large scale genetic study of people with low and high risks of NPC and patients with NPC has been ongoing under the general supervision of Malcolm Simons, Director of the Singapore WHO Immunology Research and Training Centre since 1970. To this study Hong Kong is contributing an important share.

In this lecture I shall try to analyse the important findings reported by workers in various disciplines in their studies related to the epidemiology of NPC and postulate an aetiological hypothesis most compatible with the available data.

HISTOGENESIS

The predominant neoplasm of the nasopharynx of all races is carcinoma of

the squamous type, more frequently undifferentiated or anaplastic under light microscopy or poorly differentiated than well differentiated. It is this tumour that is associated with a high frequency in southern Chinese and with an infection by EBV. Although the nasopharynx is lined by ciliated respiratory epithelium in early life, squamous metaplasia does not appear to be a prerequisite for the development of the predominant squamous carcinoma which could arise from squamous, transitional or respiratory epithelium (Chen, 1964 a, b; Shanmugaratnam and Muir, 1967; Ho, 1971).

RACIAL SUSCEPTIBILITY

The high risk of NPC is not associated with the mongoloid race as a whole. For example, the disease is rare in Japanese, a predominantly mongoloid people, and in Koreans. Among Chinese the high risk is largely confined to those of southern origin and even among people from Kwangtung with the highest frequency those from Chiu Chau have a significantly lower incidence rate than the rest from Kwangtung (Ho, 1967 and 1972a).

The risk in southern Chinese has not been found to be influenced by geographical factors when first generation migrants were concerned. This applies equally to Chinese migrants in Southeast Asia, California and Australia. However, there have been lately reports suggesting a decline in NPC mortality in Chinese Americans of both sexes over the period 1950-1969 (Fraumeni & Mason, 1974) and that the American-born 2nd generation Chinese Americans have a lower risk than the Orient-born 1st generation migrants (Buell, 1973). It is, however, not sure whether the former was the result of an alteration in the composition in terms of place of origin of the populations compared. After the last war Chinese migrants to America included a larger proportion of northern and central Chinese than before the war. This could have accounted for the decline in NPC mortality

in Chinese Americans as a whole but it would be at variance with a lesser NPC risk observed in American-born Chinese as compared with those born in the Orient. Only a genuine trend of declining mortality in American-born Chinese could have accounted for both observations, and this trend, if confirmed, points to the influence of environmental factors on the predisposition of Chinese to NPC, although it does not exclude a genetic determinant in the aetiology. However, in Singapore, Shanmugaratnam failed to detect any differentials in risk between the Singapore — and China-born Chinese after control for age and dialect group. The discrepancy is very likely to be due to the fact that Chinese-born in Southeast Asia tend to lead a way of life more closely resembling that of their China-born forebearers than the American-born Chinese. This applies particularly to food habits.

Of mongoloid people the Malays throughout Southeast Asia have a risk somewhere between those of Chinese and low-risk caucasoid Indians living in Singapore (Shanmugaratnam and Muir, 1967). The Malays in Southeast Asia have had a long period of cultural plus some racial intermingling with Chinese, mainly those from the south, dating back to the early Ming dynasty in the 14th century. The low-risk Japanese have had an even longer period of intermingling with Chinese, dating back to the Ch'in dynasty (221-227 BC), but mostly with northern Chinese. There has been practically no racial intermingling between Chinese and the indigenous mongoloid people living in Sarawak (Muir and Oakley, 1967; Arulambalam, 1968) and Sabah (Muir, Evans and Roche, 1968), but some cultural intermingling could not be ruled out. A comparatively high incidence of NPC has been found in both. On the other hand, in the people in the Highlands of Australian New Guinea, largely of Melanesian stock with practically no racial or social intermingling with Chinese, the disease is rare (Booth,

Cooke, Scott and Atkinson, 1968). It would seem that a high risk is not necessarily associated with racial intermingling with Chinese, but this could not be said for the sharing of certain cultural traits, especially dietary, as a result of social intermingling. In the case of the Indians in Singapore who rarely develop NPC, there is a definite social but practically no racial intermingling. It may be that the social intermingling did not result in the sharing of those cultural traits which are of importance in the aetiology of NPC. If there are such traits, religion is unlikely to be involved. This is indicated by the finding by Ho (1971) that in Hong Kong, "Macaonese", descendants of Portuguese settlers in Macao who intermarried with Chinese from Kwangtung, had a much higher frequency of NPC than the rest of the non-Chinese population, and the finding by Garnjana-Goochorn and Chantarakul (1967) that in Thailand, Thais with part-Chinese ancestry have a relative frequency of NPC intermediate between Thais and Chinese. Macaonese are traditionally Catholics and Thais and Sino-Thais are traditionally Buddhists. Further, Portuguese are of caucasoid stock and Thais mongoloid, yet in both the progeny resulting from their intermarriage with Chinese share one thing in common — a part of the high risk of their Chinese ancestors.

Over the last two decades we encountered among over 7000 NPC patients 3 who were the immediate offsprings of mixed Chinese and Caucasian (1 British, 1 Norwegian and 1 Pakistanian) marriages and 2 Caucasoid patients. All 3 Sino-Caucasians were brought up on a more-or-less Cantonese diet. One of the Caucasian patients spent 14 months in a prisoner-of-war (POW) camp in Singapore when he was 28 years old in 1942-3. Then he was transferred to another camp in Thailand, where he was given slices of salted fish as a major source of protein twice a week for a period of 10 months. The clinical onset of NPC occurred 27 years later. Efforts are being

made to trace the other inmates of the POW camp. The other Caucasian patient developed clinical onset at the age of 38 years after having stayed in Hong Kong for the most part of 6 years.

A review of the California death certificates coded to nasopharyngeal cancer as cause of death during 1955-64 Buell (1973) discovered that 5 of 273 white males who died of the disease were born in the Philippines or China. From the death certificate entries for name and place of birth of parents it was apparent that the five were of Caucasian stock with no Mongoloid admixture. The expected number of NPC deaths, based on certificates for other cancer deaths, was much less than 1.

It would appear from Buell's observation in California that there is a high risk of nasopharyngeal cancer not only for Mongoloid people indigenous in Southeast Asia, but also for whites born in the area. It would be of great interest to probe in retrospect the dietary history, especially concerning the consumption of salted fish, of the 5 cases reported by Buell, if it is still possible to do so. Racial susceptibility may be determined by a genetic factor or cultural environmental factors or the product of both acting together. We inherit from our ancestors not only their genes but also their cultures. It is, therefore, necessary to investigate both.

EXTERNAL FACTORS

Ingestants. — Cantonese salted marine fish prepared frequently ungutted has been found to contain appreciable quantities of dimethylnitrosamine (nitrosodimethylamine) by Fong and Walsh (1971) and by Fong and Chan (1973),- and dimethylnitrosamine is a wellknown potent precarcinogen in animal experiments. Such fish was suspected on epidemiological grounds by Ho (1971, 1972a, 1972b) because it is a traditional item of food commonly consumed by southern Chinese,

especially those from Kwangtung, rich or poor. This practice was clearly revealed in a survey of 1000 consecutive Chinese patients 500 with NPC and 500 with other cancers, at Queen Elizabeth Hospital. Only 2 patients in the latter group said they could not recall having had eaten salted fish in any form. One of them is a vegetarian and the other a native of Kiangsu province in central China. In the book "Growing up in Hong Kong" by Prof. Elaine Field and Flora M. Baber published in 1973 Dr. M. Topley in her chapter on "Cultural and Social Factors Relating to Chinese Infant Feeding and Weaning" states that the first substance added to congee was in all but one case either white or salted fish. She further states that when children began eating the same food as everybody else in the family, they had far less fresh meat and fish, more salted fish, tinned luncheon meat and preserved vegetables, fat pork and only an occasional, sometimes salted, egg. From what have been said it may not be a mere coincidence that one of our two Caucasian NPC patients happened to have a past history of consumption of salted fish.

Salted fish is not only consumed by southern Chinese in China but also outside China, in Southeast Asia, Australia, New Zealand, United States or Calcutta. In northern China salted fish is seldom if ever consumed. Until recently, "boat" people in Hong Kong and Canton would rather eat cheap salted fish than their fresh catch, which they could sell for a good price. Furthermore, their food often lacked fresh fruits and vegetables, sources of vitamin C, because they could not be kept for the long periods when they went out fishing. In place of fresh vegetables they often ate the less easily perishable brined or dried vegetables. Whether these vegetables contain nitrosamines is not known but they certainly contain nitrate which can be readily reduced to nitrite by bacterial action. Nitrosamine formation has been shown to occur in the stomach and upper part of the small intestine from ingested nitrite and amines or their precursors

(Lijinsky and Epstein, 1970), and vitamin C has been shown to be able to block the synthesis of nitrosamines in vitro (Mirvish, Wallcave, Eagen and Shubik, 1972). There had been until recent time a traditional belief among many people from Kwangtung that salted fish meat was a baby's flesh-toughener. Hence it was often added to the congee fed to weaning babies to give it taste as well. This practice was universal and is still prevalent among the "boat" people in Hong Kong and in Canton where, thanks to the Canton authorities, the author had an opportunity in 1972 to interview a former "boat" woman, a grandmother, who confirmed the existence of such a practice even to this day.

FAMILIAL AGGREGATION

Familial aggregation may reflect an in-born susceptibility or an increased exposure to environmental predisposing factors.

Ho (1972b) found a significantly higher frequency of NPC in close blood relatives of NPC patients than in patients suffering from other cancers and that the familial aggregation of NPC was quite random and appeared to be as likely to occur in the vertical as in the horizontal direction and not sex-linked. This impression is further reinforced by an up-to-date study of the pedigree of a southern Chinese family with NPC affecting three successive generations shown in Fig. 1.

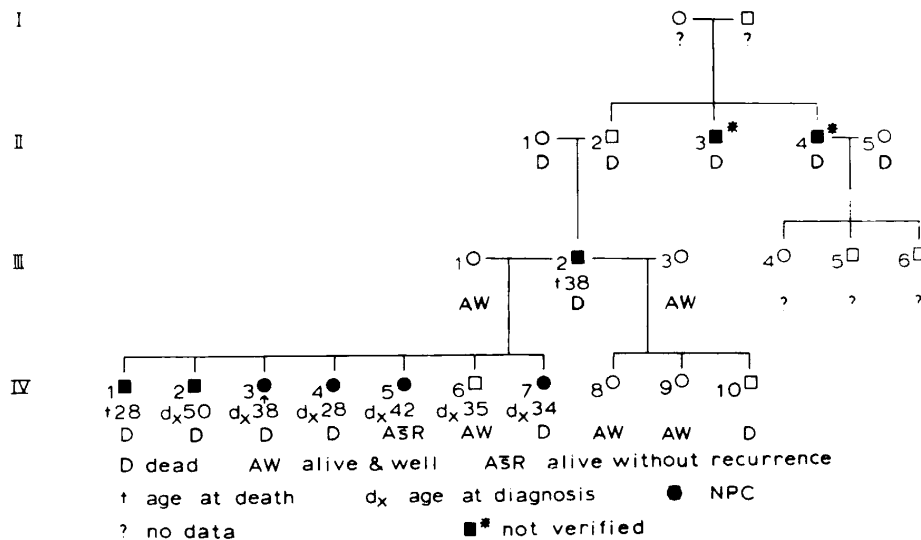


Fig. 1. Pedigree study of a family with multiple cases of NPC extending over three successive generations.

It would appear from this and the familial aggregation studies that if there was a genetic factor in NPC predisposition it is insufficient by itself to cause NPC. One or more other factors are required to work in collaboration with such a factor which presumably renders some cells in the nasopharynx more vulnerable to the action by other agents leading ultimately to malignant neoplasia.

GENETIC STUDIES

The high incidence rate in certain racial groups is an indication that the racial sus-

ceptibility may have a genetic determinant. If this exists, it is likely to be expressed through genetic systems related to immunity, the body's defence against the invasion by foreign substance or cells. Genes associated with tissue incompatibility and best characterised in man by the white blood cell groups concerned with tissue typing for organ transplantation, particularly the HL-A gene system, were thought to offer the best prospect for study (Simons et al., 1973).

HL-A typing of NPC patients from Singapore, Malaysia and Hong Kong and

controls revealed an increased frequency of HL-A2 of the 1st (SD₁)* locus and of an unidentified antigen or antigens at the second locus in NPC patients (Simons et al., 1974a). A second locus antigen has been recently identified and provisionally called Singapore-2 (Simons et al., 1974b). Preliminary evidence indicates that Singapore-2 (Sin-2) occurs with high frequency in NPC patients (Simons et al., 1975). In Hong Kong we have a large number of families with more than one member with NPC. Typing of these families has confirmed that Sin-2 segregates as a HL-A antigen (Ho et al.). It is hoped that an ongoing genetic study of these families might provide important information on whether this HL-A type is a marker of genetic risk for developing NPC. It is not thought

*SD: abbreviation for serologically detectable.

that the new histocompatibility antigen Sin-2 is the hypothetical "NPC susceptibility gene" but only closely linked to the gene so that Sin-2 occurs significantly more frequently in patients with NPC than in persons without. A great deal has yet to be done to bracket and identify the hypothetical gene. Since HL-A is not sex-linked, this gene cannot explain the uniform male predominance in the incidence of NPC uninfluenced by geography or race.

AGE DISTRIBUTION CURVES OF NPC

Ho (1972a) compared the age distribution curves for nasopharyngeal carcinoma with all other histological types excluded in Hong Kong and Singapore Chinese and Swedish males and found there was much similarity in the shape of the curves for Chinese in both places (Fig. 2). Both are

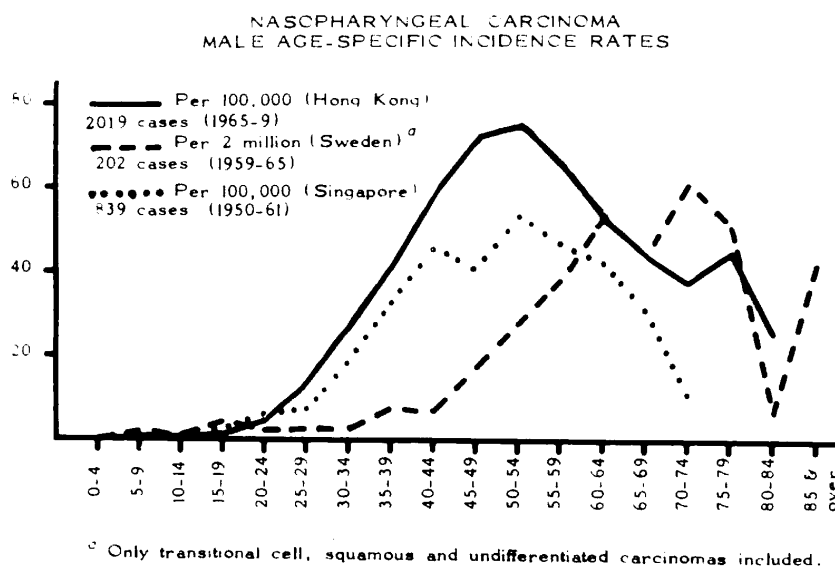


Fig. 2. Nasopharyngeal carcinoma. Male age-specific incidence rates.

bell-shaped with a rapid, almost uninterrupted, rise in incidence rate after 20-24 years of age to a peak between 50 and 54, and thereafter decrease with age. In the case of the Swedes the rise occurred two decades later and continued to a peak at 70-74. It is similar in shape to the curves for death rates for bronchial cancer in many parts of the world. In the case of bronchial cancer in male cigarette smokers Doll (1963 and 1970) attributed the progressive increase in

incidence with age to a prolonged and continuous exposure to an agent, like cigarette smoke, of approximately equal intensity. The morbidity rate in such a case would be proportional to a power of the duration of exposure which, in turn, would correspond to the age of the exposed persons. For most epithelial cancers he found the power of duration of exposure to be characteristically between 4 and 6.

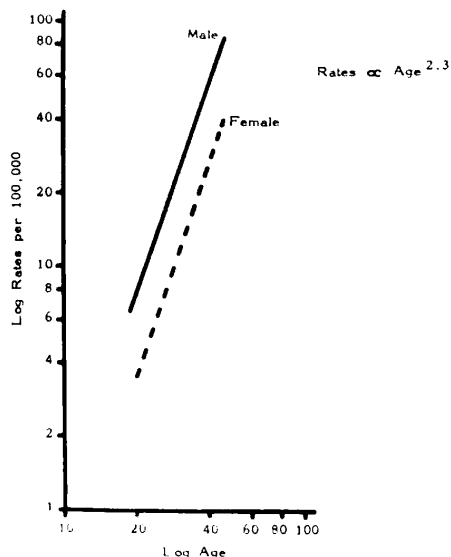


Fig. 3. Age-specific incidence rates of nasopharyngeal carcinoma for Hong Kong Chinese males and females (log-log scale) 1965-1969.

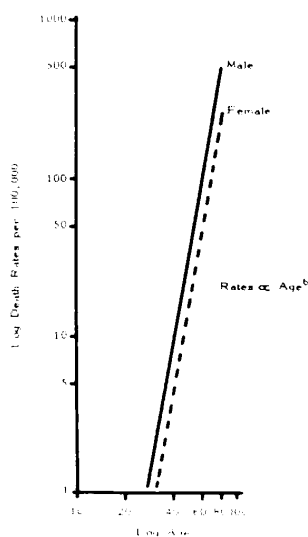


Fig. 4. Age-specific death rates of bronchial cancer for Hong Kong males and females (log-log scale).

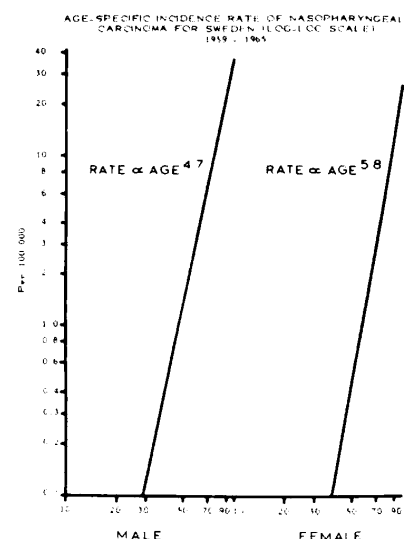


Fig. 5. Age-specific incidence rate of nasopharyngeal carcinoma for Sweden (log-log scale) 1959-1965.

Figures 3 and 4 show the incidence and death rates for respectively NPC and Bronchial cancer in Hong Kong for both sexes as a function of age in a log-log scale, and Fig. 5 shows the log-log curves for NPC in Swedes. For NPC in Hong Kong and Sweden the slopes of the approximately linear rising part of the curves in both sexes are respectively proportional to about the 2nd and 5th powers of age, whereas that in the case of bronchial cancer the slope is proportional to the sixth power of age.

Bronchial cancer is believed to be largely a product of modern environment, whereas NPC has been afflicting southern Chinese with high frequency for at least three-quarters of a century whether they live in villages or cities. Living environment has changed significantly for many Chinese, especially those who have migrated from rural districts to cities in China, Hong Kong or overseas, and yet the risk remains very high. Consequently, it is unlikely that chemical agents in the atmosphere play an important causal role. We have to look, therefore, for traditional ingestants and ubiquitous environmental agents such as some viruses. The early steep rise in the

age-specific incidence rates could be explained by an exposure to an agent much earlier in life than cigarette smoke and occupational carcinogens. Carcinogenic processes usually take some twenty years or longer to manifest their results clinically, depending on the potency of the carcinogenic agent, the intensity and duration of the exposure, the susceptibility of the host, the presence of inhibiting or accentuating factors, the growth rate of the resultant neoplasm and its accessibility to clinical detection.

The decrease in incidence rates after 50-54 is probably due to a gradual exhaustion of the susceptibles in the population.

VIRUS

A constantly close serological association independent of geography has been found between NPC and an ubiquitous herpesvirus, the Epstein-Barr virus (EBV). Patients in Africa, Hong Kong, Sweden, France and the United States uniformly show a high EBV-associated serological reactivity in relation to the membrane (MA), viral capsid (VCA), early (EA), and soluble (CF/S)

antigen systems that have been tested (Klein, 1973). Recently, a high reactivity to the nuclear antigen (NA) has been found in Hong Kong Chinese patients as well (de The', Ho et al. in preparation). When the disease was staged before treatment according to Ho's classification (Ho, 1970), which was designed to relate stage to prognosis and presumably to tumour burden, it has been found that the serological reactivities to all the EBV-associated antigens generally increased from stage 1 to the later stages (Henle et al., 1970; De Schryver et al., 1974; de The' et al., in preparation). It is likely that the humoral response merely reflected the magnitude of the tumour burden and the availability of the antigens for stimulating antibody production. This close serological association has not been found in other tumours of the head and neck (De Schryver et al., 1969). Although a high EBV-associated serological reactivity has been observed in some patients with other carcinomas the association with such tumours is not constant. If EBV plays only a passenger role, one would expect some NPC patients to have a negative or very low EBV-associated reactivity like the other carcinoma patients but such have not been found. Normally, tumours, which have acquired a viral infection, tend to lose it readily, whereas virus-induced tumours, e.g. polyoma tumours, maintain it in spite of adverse selection. Klein et al. (1974) have demonstrated the persistence of EBV DNA and NA in successfully transplanted undifferentiated NPC tumour cells in nude (thymusless) mice even after two passages, indicating that the viral genomes were integrated in the nuclei of the carcinoma cells.

An oncogenic potential of the virus has now been demonstrated in vitro by its ability to transform normal EBV-negative lymphoid cells obtained from umbilical cords of new born infants into established cell-lines capable of unrestricted growth and in vivo by its ability to cause malignant lymphomas resembling reticulum cell sarcoma in cotton

top marmosets and owl monkeys but not apparently in squirrel monkeys, rhesus monkeys or gibbons. Although other factors such as parasitism may play a role in the susceptibility of especially the jungle-bred marmosets, genetic factors, which are of great importance in murine and avian experimental tumorigenesis, may contribute to their susceptibility. (Miller, 1974).

Although an oncogenic potential of EBV for epithelial cells has not been demonstrated, it has been convincingly demonstrated by Wolf et al. (1974) and by Klein et al. (1974) that NPC cells do in fact contain EBV DNA and by Huang et al. (1974) and Klein et al. (1974) that they contain EB associated nuclear antigen (EBNA) indicating the presence of EB provirus in the nuclei of NPC cells.

It has yet to prove that the integrated endogenous viral genomes are the cause of NPC. It may never be possible to establish whether the expression of viral antigens in tumour cells represents a cause or a result. The virus may cause cancer, cancer may activate the virus or some other factor may be independently doing both.

DISCUSSION

Any tenable aetiological hypothesis for the high frequency of NPC in southern Chinese apparently independent of Geography must be compatible with the epidemiological data described, which, at first glance, appear to be highly in favour of the presence of an all important genetically determined susceptibility. On closer examination, however, we are confronted with a dilemma. Southern Chinese are far from being a homogeneous population group. They comprise many dialect and some ethnic subgroups and the majority of them came originally from northern and central China, areas with a much lower frequency of NPC, to settle in the two southern coastal provinces, Kwangtung and

Kwangsi. Throughout the past history of China there were from time to time major inter-regional migrations caused by serious regional famines, foreign invasions and internal wars. For instance, the Hakkas or "guest people", a major subgroup, were originally of northern China stock (Ho, 1959). Altogether there have been five major Hakka migrations over the last sixteen centuries. After their third migration in early Ming dynasty about the latter part of the 14th century Hakkas had settled in northern Kwangtung. Now they are found in many parts of Kwangtung. There are also Hakka villages in Hong Kong. The Hakkas in Singapore are called Kheks and they had been found by Mekie and Lawley (1954) to have a significantly higher relative frequency of NPC than people from Hokkien (Fukien province) and Teochew (Chiu Chau), a part of Kwangtung adjacent to Fukien. Culturally, the Teochews are closer to Hokkiens than the Cantonese, Hakkas and Hainamese in Kwangtung. It would be difficult to imagine how a genetic factor in such a genetically heterogeneous population group could have produced a consistently high frequency of NPC in the group, consisting of people many of whom have distant ancestors from low-frequency areas. An epidemiological study of Hakkas in low- and high- frequency areas of China would provide much needed information. A much more plausible hypothesis is the sharing among high-risk southern Chinese of certain rare traditional food culture, which was developed after their ancestors had settled in the south and which is perpetuated by those who have later migrated overseas. Further, this culture leads to the frequent ingestion or the formation in the gastro-intestinal tract of a nasopharyngotropic chemical compound, which, when absorbed, will react with some critical cellular components to induce malignant transformation in some nasopharyngeal epithelial cells, or alter-

natively triggers a potentially oncogenic virus or provirus integrated in the cell to activity. There is as yet no information on how the EB virus gets entry into an epithelial cell. It has to have a virus receptor as in the case of lymphoid cells. It may be here that a hypothetical NPC susceptibility gene locus/ loci provides the necessary gap in the immune defence to allow its entry. Nasopharyngeal carcinomas usually start apparently from just one locus and only occasionally from two or more loci. An immunogenetic deficiency would have allowed infection of many cells. Therefore, it is probably not the common type of infection but the rare occasion when an abortive infection occurs in a cell leading to the integration of certain EBV genomes in the cellular chromosomes that determines its ultimate malignant transformation and the side of origin of carcinoma in the nasopharynx. There are still too many gaps in our knowledge. It is too early to speculate too much. The fact remains that in population surveys carried out in Hong Kong financed by I.A.R.C., almost all Chinese children have been found to show serological evidence of infection by EBV before the age of 15 years, and many southern Chinese children are fed dimethylnitrosamine-containing meat from Cantonese salted fish very early in life. In the investigation of carcinogenesis in man for ethical reasons what we can do is to demonstrate what could have occurred but not what did occur. If southern Chinese stop consuming salted fish now we would be able to check the salted fish hypothesis in 20-30 years' time by cohort studies.

CONCLUSION

On presently available evidence 3 factors are suspected to be involved in the genesis of NPC. They are: (1) A genetic predisposing factor likely to be linked closely with a major gene locus provisionally called Sin-2, (2) EBV and (3) Certain traditional ingestants in the southern Chinese diet,

particularly Cantonese salted fish in the case of a high-risk southern Chinese. In the case of population groups with low risk such as Swedes the carcinogenic process may differ in some or all of the factors involved and also the period of life when they are exposed to external factors that may play a role in the carcinogenesis. It is unlikely that any one of the factors suspected can alone cause NPC, the aetiology of which is now believed to be multifactorial.

Before concluding this lecture I would like to make a plea for more emphasis on the teaching of epidemiology in our medical curriculum. Plague, small-pox, cholera and tuberculosis have disappeared or rapidly disappearing as scourges of mankind, thanks not to the improvement of methods of diagnosis or treatment but to preventive measures evolved from epidemiological studies. The solution to our cancer problem lies likewise in epidemiology.

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PAEDIATRIC SURGERY - ITS DEVELOPMENT, ACHIEVEMENT AND ROLE IN THE DELIVERY OF MEDICAL CARE

By Dr. PAUL C. K. YUE

DEVELOPMENT

The concept of surgeons specialising in paediatrics, and the appointment of full-time paediatric surgeons, took place in Europe, North America and Australia at the beginning of this century. However, the appointment of the first paediatric surgeon was made only many years, sometimes as long as one hundred years, following the foundation of the children's hospital. Before then, general surgeons were employed to treat children on a part-time basis. During this early period, the paediatric surgeons were to a large extent engaged in orthopaedic surgery. Today, although the practice of paediatric surgery varies from country to country and from centre to centre, the basic work of every paediatric surgeon consists of surgery of the newborn, abdominal and thoracic surgery of childhood, and paediatric oncology and trauma. In addition many surgeons participate in urological, cardiac and transplant surgery.

Modern paediatric surgery is largely the work of three generations of surgeons. The founders were notably William Ladd in Boston and Denis Browne in London, both started their work around 1920. The second generation comprises of about 60 surgeons who were responsible for founding the British Association of Paediatric Surgeons in 1953, and the Surgical Section of the American Academy of Paediatrics. They now form the core of this specialty and they work very closely together. The third generation consists of younger surgeons, qualified and

trained in the last twenty years. They are of larger number and are distributed all over the world.

It always takes time for something new to become accepted and recognised. This is particularly true for paediatric surgery. By now, although this new specialty is well recognised in countries such as Britain, United States and Australia, the struggle for recognition is going on in most parts of the world. As the situation improves, a number of new national and international associations were formed. In 1967 the Pacific Association of Paediatric Surgeons was founded, while the American Paediatric Surgical Association was founded in 1970, and the Asian Association of Paediatric Surgeons was founded in 1972.

The setting up of professional examination on a new specialty, and a system of certification is an integral step in securing full official recognition of the specialty. Australia has been the first country in the English-speaking world to have such an examination. Since the early 1960's the Final Fellowship examination of the Royal Australasian College of Surgeons can be taken in paediatric surgery as a speciality subject. In the United States, the American Board of Paediatric Surgery came into existence 2 years ago. In Britain, a system of certification is now being introduced by the Royal College of Surgeons of England.

In many countries some forms of training programme for paediatric surgery have been introduced. These different programmes agreed on three main points:

* Presidential address given to the Medical Society, University of Hong Kong on 19th November, 1975.

- 1) The minimum training period after qualification should be 7 years;
- 2) The training period in paediatric surgery should be at least 2 years;
- 3) Good basic training in general surgery is essential, and the period of training in this should be 4 years.

There are differences in opinion concerning training in the elective subjects such as medical paediatrics, anaesthesia, pathology, general medicine, research, etc. (Rickham, 1972).

In most Asian countries, paediatric surgery is recognised only to a varying extent by the different local authorities. In most instances, the effort to develop this specialty comes more as personal endeavour on the part of the paediatric surgeons, rather than the planned object of the local health authority. There are very few children's hospitals which form the ideal breeding ground for paediatric surgery. The number of qualified paediatric surgeons by international standard is few, and they work under difficult circumstances.

ACHIEVEMENT

In the past 30 years, there have been rapid advances in paediatric surgery. This remarkable achievement has been made possible because of three main developments:

- 1) There are surgeons who are interested in paediatric surgery. They receive training in the special problems in paediatrics, and acquire experience through constant practice as a full-time career;
- 2) The setting up of paediatric surgical centres. These provide not only the necessary facilities and team approach, but also the degree of concentration of clinical material

which is essential in enabling the team to have sufficient experience to improve on their standard;

- 4) The parallel advancement in closely related fields such as medical paediatrics, anaesthesia, pathology, radiology and biochemistry.

Research

Intensive research stimulated by clinical problem in this field has shed new light in many areas of our basic knowledge. Two examples are given below.

1) *The autonomic nervous supply to the intestine*

a) Okamoto and Ueda (1967) carried out serial sections in human embryos of various periods of gestation and found that the ganglion cells of the intestine are derived from the neurocrest in the cervical region. The neuroblast reach the cervical oesophagus, via the vagus nerve. They then migrate in a caudal direction within the wall of the intestine to reach the anorectal canal. This occurs during the 5th to the 12th weeks of gestation. Hirschsprung's disease is postulated to be due to the arrest of the migration of the neuroblast before the 12th week of gestation, thus leaving the distal gut devoid of ganglion cells.

b) According to the classical concept, the sympathetic nerves reach the intestine as post-ganglionic fibres and pass directly to the smooth muscle and the blood vessels without synaptic contact with the ganglion cells of the intramural plexuses. Using the histochemical fluorescence technique to demonstrate adrenergic fibres in the colon, it has been found that the majority of the sympathetic adrenergic fibres end in the intramural plexuses where they form terminal synaptic arborization around the ganglion cells. Thus these sympathetic fibres are to

be regarded as preganglionic in relation to the intramural ganglion cells (Ehrenpreis et al, 1968).

2) Parenteral feeding

The early work in parenteral feeding was carried out in infants where its value was established in that it not only can maintain life but also support growth and development. Extension of the research in this field had led to the discovery of many physiological requirements for nutrition and growth (Dudrick et al, 1968; Borresen et al, 1970).

Neonatal surgery

The most dramatic achievement in the field of paediatric surgery is found in the surgery of babies born with life-threatening congenital anomalies. The remarkable improvement in the clinical result is an undeniable evidence justifying the existence of this specialty.

In 1949 a survey in Liverpool produced a survival rate of 28% for neonates born with malformation requiring urgent surgical treatment. In 1953, a regional neonatal surgical centre was opened in Alder Hey Children's Hospital serving the Liverpool region. In the first 6 years of its existence the overall survival of all infants admitted into this centre was improved to 76% (Rickham, 1969).

In Queen Mary Hospital, a neonatal surgical unit was set up towards the end of 1967 and became fully operational in 1968. The experience in this unit in the eight years period from 1968-1975 is more or less a reproduction of the events that took place 15 years ago in Liverpool. Some of the results are given below.

1) Overall survival of neonates with congenital anomalies of the alimentary tract.*

* All the statistics from the paediatric surgical service in the University Department of Surgery have been calculated up to 2nd November, 1975.

Figure 1 shows the result in different years. It is obvious that with the establishment of the neonatal surgical unit in 1968, the survival rate has doubled that in 1966 and 1967. Allowing for some fluctuation in the result in different years, a fairly uniform standard has been maintained since 1968. This tremendous improvement in survival rate is remarkably similar to that in Liverpool before and after the setting up of the Neonatal Surgical Centre.

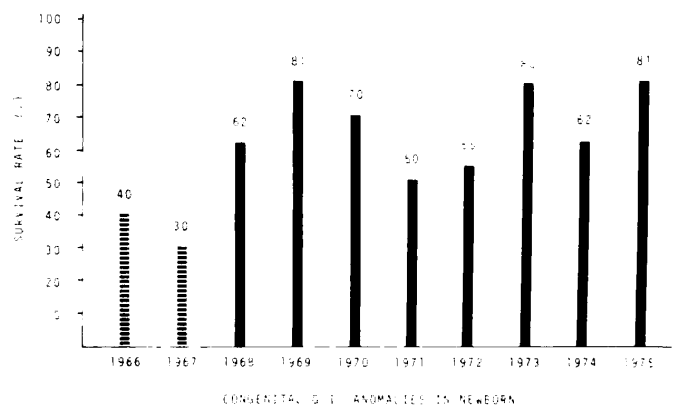


Figure 1 — Congenital anomalies of the gastrointestinal tract in Newborn — survival rate in each year in the University Department of Surgery.

2) Oesophageal atresia

In the 14 years period from 1952 to 1966, the available record showed that there were only 6 cases of oesophageal atresia admitted into the University Department of Surgery and none of the patients survived. In 1967 there was one baby admitted who survived after a staged procedure was performed. The second stage of the operation was completed in 1968. In the ensuing 4 years 1968-1971 there were only 5 patients admitted and they all died. In the recent 4 years 1972-1975 more patients were admitted, and at the same time an increasing number of them survived (Figure 2).

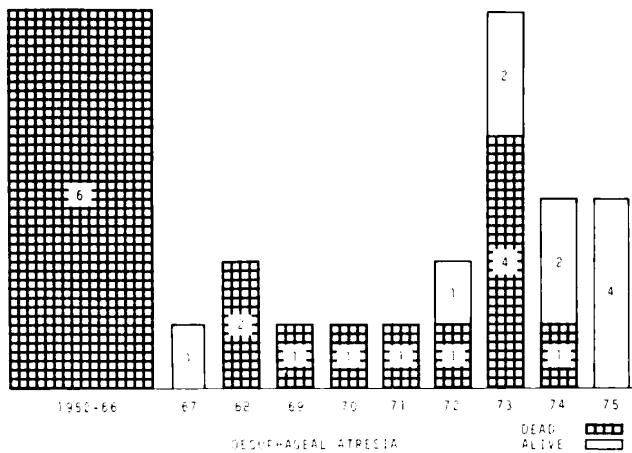


Figure 2 — Oesophageal atresia — result of treatment in different years in the University Department of Surgery.

The logical conclusion that can be drawn from this set of results is that

a) Consistent satisfactory result can only be produced by specialized and concentrated effort in treating this group of disease;

b) Result comes only when the team is given the opportunity to gain sufficient experience over a period of time and given an adequate number of cases.

When the survival rate is correlated with the "at-risk" group classification of the patients (Waterston et al, 1962) (Table 1) it is clear that Group A patients have an over 80% chance of survival while Group B patients have about 50% chance. So far, none of the patients in Group C has survived. In the well-developed centres the survival rate for Group A patients is around 95%, and efforts are presently directed to improve the salvage rate in Group B and C patients (Cozzi and Wilkinson, 1975).

3) Neonatal intestinal obstruction

Table 2 summarises the details of the various conditions.

TABLE 1
OESOPHAGEAL ATRESIA
(1968 — 1975)

AT-RISK GROUP	NO.	SURVIVAL
A	6	5 (83%)
B	7	4 (57%)
C	7	0
OVERALL	20	9 (45%)

Table 1 — Oesophageal atresia — the survival rate as related to the at-risk group classification.

TABLE 2
1968 — 1975

	TOTAL NO. OF CASES	SURVIVAL			
		A	B	C	OVERALL
OESOPHAGEAL ATRESIA	20	83	4	0	45
DUODENAL ATRESIA	13	100	60	0	54
JEJUNAL/ILEAL ATRESIA	22	82	44	0	59
ANORECTAL ANOMALIES	42	85	58	10	59
MECONIUM OBSTRUCTION	3	0	100	0	33
MALROTATION MIDGUT	11	80	100	—	82
HIRSCHSPRUNG'S DISEASE	29	—	—	—	78

Table 2 — Neonatal intestinal obstruction — the number of patients with different types of lesions and their survival rate as related to the at-risk group classification.

Mongolism is present in 30% of our patients with duodenal atresia, and 26% of those with anorectal anomalies. This incidence is higher than that reported elsewhere. Rickham (1969) reported an incidence of 20% in his series of 68 cases of duodenal atresia. Stephens and Smith (1971) had only 8 cases of mongolism among 246 cases of anorectal anomalies giving an incidence of 2%.

The risk group classification of patients give fairly reliable guidance in the prognosis of patients with atresia of the duodenum and small intestine, as well as anorectal anomalies. The survival of patients with malrotation of midgut, meconium obstruction and Hirschsprung's disease appear to be more dependent on the primary pathology and its complication. In malrotation, volvulus necessitating massive gut resection is the determining factor. Babies with meconium obstruction tend to have malabsorption after successful operation, and this was responsible for the late deaths in the two patients.

Hirschsprung's disease is seldom associated with prematurity or other major congenital abnormalities, therefore the risk-group classification is not applicable. Most of the mortality occurs in patients presenting with obstruction in the neonatal period. The major cause of death is enterocolitis which is a very serious complication of the disease.

4) *Diaphragmatic hernia*

This is the most urgent surgical emergency in the newborn, because of cardiorespiratory distress which may rapidly lead to death. The success in treatment is a test of the standard of the medical service. It requires early diagnosis in the maternity unit, and prompt referral of the patient to the neonatal surgical unit with proper ventilatory support during the transit, and then quick organisation of the operating team so as to get on with the operation without delay.

All these babies have some degree of hypoplasia of their lungs, more on the side with the hernia. The postoperative care of such babies requires intensive care providing proper and energetic management using respirators, measures to maintain clear airway and blood gas monitoring.

The early development of symptom is the result of cardiorespiratory decompensation due to the mechanical effect of the hernia and the degree of hypoplasia of the lungs. The earlier this takes place the more serious the condition and the poorer the prognosis.

Results in all centres show that babies presenting within 24 hours of birth have a mortality of over 50%, which is much higher than those presenting after 24 hours. Our result is shown in Table 3.

DIAPHRAGMATIC HERNIA
(1968 — 1975)

PRESENTATION	NO.	SURVIVAL
< 24 HOURS	7	3 (43%)
24 HOURS	6	6 (100%)
TOTAL	13	9 (70%)

Table 3 — Congenital diaphragmatic hernia — survival rate of patient as related to the time of presentation.

ROLE IN THE DELIVERY OF MEDICAL SERVICE

There is no doubt that paediatric surgery should be an indispensable part of the comprehensive medical service in any organised community. In open countries like the United States and Britain, paediatric surgical centres are set up on a regional basis, each centre serving a wide area covering smaller towns within the region. In the United States there are such centres in 48 major cities (Ravitch, 1974). In the British Isles there are centres in 12 major cities, while in Australia the centres are concentrated in only 5 major cities.

In Hong Kong with our population confined to a smaller area, only one such unit is required which will serve as a referral centre. There are 2 reasons for holding such a view.

1) The neonatal surgical unit is essentially an intensive care unit. In order to function properly it requires an inordinately large staff of trained medical and nursing personnel, as well as a variety of equipments. It would be unsound from the economic point of view to duplicate this type of set-up in different hospitals within a community.

2) In paediatric surgery, the important lesions are all rare, occurring one in 5,000 to 20,000 live births. The number of cases of each type of lesion is small and if they are scattered in different hospitals, then although the individual surgeon may by chance produce an occasional success, on the whole there will be no one unit or individual in the entire community who will be

sufficiently experienced to produce consistent acceptable result. This is a deplorable state of affairs.

All clinical material must therefore be concentrated in a single unit so that the staff, both medical and nursing, will have the opportunity of obtaining enough experience to maintain their standard. It is also essential to have sufficient clinical material in order that such a unit can fulfil its role in teaching and research.

In Hong Kong we have gone quite a long way along this line. Most of the paediatricians in different hospitals have been cooperative in referring cases, especially neonates to our unit.

The clinical material in paediatric surgery can be divided into two types. The first type consists of special problems which must require the expertise of the paediatric surgeon working in a paediatric surgical unit. These include (1) all surgery of the neonates, (2) surgery of major congenital anomalies and (3) surgery of malignant tumours. The second type consists of simpler conditions, such as inguinal hernias, hydrocoeles, appendicitis. Most of this group of cases can safely be treated by well-trained general surgeons who have had some experience in paediatric surgery.

The number of patients admitted into the paediatric surgical unit has increased by about 400 in the recent 4 years (1972-1975), when compared with that in the previous 4 years (1968-1971). Nearly all this increase was in the special cases which has increased from 475 to 810 (Table 4).

	TOTAL	EMERGENCY	ELECTIVE	SPECIAL PROBLEMS	
1968-71	8,457	3,809	1,648	475	(8.6%)
1972-2,11.75	8,872	3,797	2,075	810	(13.7%)
	(+ 415)		(+ 427)	(+ 335)	

Table 4 — Number of patients admitted into the paediatric surgical service in the University Department of Surgery.

The number of babies admitted into the neonatal surgical unit has increased since 1968 (Figure 3), and in the last 4 years (1972-1975) there is an average of 39 cases admitted per year. This is a disappointingly low figure considering our 4.2 million population. While many neonates have not been referred to the unit, there appears to be a relatively low incidence of major congenital malformation among our Chinese population.

The Liverpool regional neonatal surgical centre drains a population of 3 million and its average annual admission was around 120-150 thus providing sufficient work for three surgeons (Rickham, 1971).

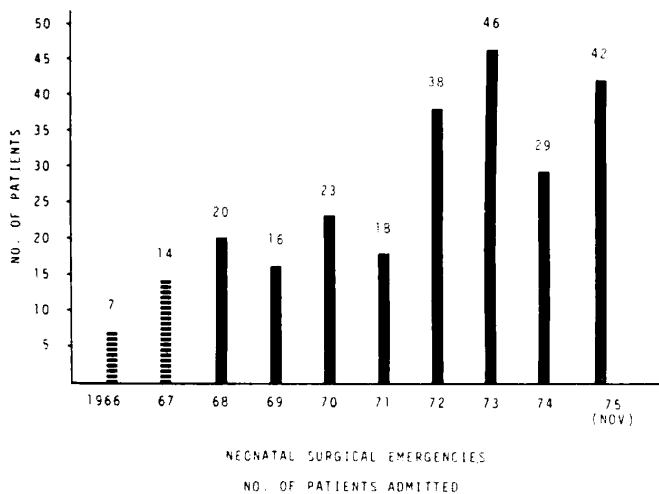


Figure 3 — Neonatal Surgical emergencies — annual admission rate to the University Department of Surgery.

Some 6 years ago the British Association of Paediatric Surgeons recommended one paediatric surgeon per million population. In the recent years, with the success of family planning there is a steady decline in birth rate. In particular the number of babies born to very young and old mothers are dropping. These two groups carry high risk of producing babies with congenital anomalies. As a result, the number of babies born with congenital anomalies are decreasing in number. It becomes necessary now to determine the number of paediatric surgeons required in a community according to the volume of work and the mode of delivery of medical service, instead of using the principle of surgeon: population ratio. (Table 5 and 6)

DISTRIBUTION OF PAEDIATRIC SURGEONS

	POPULATION (MILLION)	PAEDIATRIC SURGEONS	SURGEON PER MILLION POPULATION
U.S.A. + CANADA	224	220	1
BRITISH ISLES	58.5	38	0.65
AUSTRALIA	14	35	2.5
WEST GERMANY	60.8	23	0.38
FRANCE	50.3	19	0.38
DENMARK	4.9	3	0.61
FINLAND	4.7	9	1.9
NORWAY	3.8	1	0.25
SWEDEN	7.9	6	0.75
BELGIUM	9.7	7	0.8
LUXEMBOURG	0.33	1	3.0
NETHERLANDS	12.7	6	0.47
AUSTRIA	7.4	7	0.9
SWITZERLAND	6.2	13	2.1
TOTAL		388	

Table 5 — Distribution of paediatric surgeons in Europe, North America and Australia.

DISTRIBUTION OF PAEDIATRIC SURGEONS

	POPULATION (MILLION)	PAEDIATRIC SURGEONS	SURGEON PER MILLION POPULATION
JAPAN	110	100	0.9
INDIA	547.9	70	0.13
THAILAND	40	22	0.55
PHILIPPINES	48	8	0.17
ISRAEL	3.25	4	1.23
MALAYSIA	11.7	3	0.26
INDONESIA	130	2	0.015
SINGAPORE	2.2	1	0.45
SRI LANKA	11.8	5	0.42
TOTAL		215	

Table 6 — Distribution of paediatric surgeons in Asia.

Our existing work load is a disproportionately small volume of special cases versus a much larger volume of simple conditions. The present situation can support and require two surgeons. If all the special clinical material will drain to a single unit, then there may be sufficient work to justify a third surgeon. The important point to stress is that all these surgeons should work in the same unit and not in different hospitals. Any division of the case load in different hospitals will dilute the volume of special cases to the extent that each surgeon will not get enough of work to keep him viable both technically and intellectually. From the above findings,

it is reasonable to suggest that more effort should be directed to further improving and consolidating the existing unit. There should be greater concentration of clinical material, especially the neonatal emergencies. More cooperation from more doctors — general surgeons, paediatricians and obstetricians — will help to achieve this goal.

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TRENDS IN MEDICAL EDUCATION *

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The most important development in medical education in our time is the full acceptance that the undergraduate course is no longer a separate entity but part of a continuum in a life-long process. Like most developments it is not altogether new — the great William Osler (1905, a,b) wrote of “quinquennial braindusting” and of “continuous education” but until recently there was little pressure on the doctor once he had graduated from medical school to take steps other than by daily practice to keep abreast of new developments. The doctors at greatest disadvantage in this respect were those in independent or general practice who have less opportunity of frequent discussions with colleagues and attendance at meetings of Specialist Societies.

In this article I would like to touch on some of the implications of acceptance that medical education must be in fact as well as in theory a continuing process.

OBJECTIVES

It is fashionable and, in many respects, educationally advantageous, to define and state the objectives of each part of an educational process. What is more, they should be defined in terms which make the objectives understandable, achievable and measurable or at least assessable. This is practicable for individual parts of medical education but more difficult for the process as a whole. Most would be agreed that the objective is to produce “a good doctor” but even if we accept that different kind of

doctor are needed it is not easy to define what is a good doctor and much less so to measure or assess whether the objective has been achieved. Certainly a valid assessment of that quality, if possible at all, has to be made many years later rather than at graduation.

A generation ago the objective of the five or six year undergraduate course had to be to produce “the safe doctor” who as soon as he had qualified was expected to be able to cope independently with a great variety of diseases and symptoms. Now the complexity of medicine, the technical advances and the universal acceptance of the need for postgraduate training has altered the picture. So we might say that the objective now is to produce the basic or toti-potential doctor. On the other hand a paradox exists. Just at a time when the scientific basis of disease is being mastered and leading to rational rather than empirical treatment there is a worldwide anxiety that the profession is failing to give to society the quality of holistic health care and education to which it is entitled. This relates to the role of the physician and our concept of disease. The graduate from the average medical school is well versed in the scientific basis of medicine but is often ill-equipped to deal with the social situations and personal problems which underlie many of the symptoms bringing patients to seek their advice. What have been called “problems in living” are just as important for the individual and the community as those of physical disease and this fact must be borne in mind when we consider the objectives of medical education, when we select students and when we devise curricula.

*Based on a lecture given in the University of Hong Kong on 7th January 1975.
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SELECTION

Selection of medical students is made difficult by the complexity of objectives in medical education and by the great number of highly qualified applicants. In the United Kingdom, as in most other countries, Medicine has become the most popular single subject for applicants to Universities. Nearly 10% of applicants put Medicine as first choice and these are amongst the most able. In the four years between 1969 and 1973 the number of applicants for Medical courses at British Universities received by the Universities Central Council on Admissions rose by 86%. Over the same period the number of places awarded on such courses increased by 22% and the proportion of successful applicants fell from 35% to about 23%.

In Science, on the other hand, the number of applicants over the same period decreased by 4% and the number of successful applicants rose from 67% to about 75%. The total number of University applicants rose by 10% over this period.

There is thus no shortage of able applicants and there is a need for further research into methods of selection. In this connection we should take note that interviews, and aptitude and personality tests are much more useful when applied to career choice than to selection. Industrial psychologists have shown that when selection is at stake the responses are less reliable and the results less valid than when the person being tested knows he has been selected for employment by the company and is now being tested as to which of the company's activities is the best fit for his aptitudes. I suggest we might be well advised to institute tests after acceptance to medical school as part of career advice during basic medical education.

The present method of selection of students in Edinburgh and many other British medical schools is based almost entirely on

academic attainment as judged by performance in Certificate of Education Examinations, and entry requirements for medicine are amongst the highest for any career. Perry (1966) showed convincingly that by rigid adherence to these criteria it is possible to select students who will not fail, for academic reasons, to complete the course. He made no claim that students selected in this way will necessarily make the best doctors, and indeed there is increasing evidence that correlation between academic performance at school and subsequent career success is not good. Equally, there is no reason to believe that intellectual students are less likely to make good doctors, although assuredly some less intellectual ones would make and have made equally good doctors. Non-intellectual characteristics are important but are difficult to assess; motivation, kindness and sound judgement are difficult qualities to measure. It seems unlikely that the same attributes are desirable for a neurosurgeon as for a dermatologist; for a family doctor as for a biochemist. Nations have to consider cost-effectiveness. Can they afford wastage due to academic failure from expensive medical courses? Can they afford to have many of their best intellects creamed off into only a few of the branches of medical practice? Might not entrants draw from artisan backgrounds be better able to deal with the medical problems of the underprivileged, or do less well-educated people prefer to have a god-figure rather than a social peer as their doctor? Experiments in selection are urgently needed before the supply of applicants with the highest academic qualities becomes less than the number of available places in medical schools. At present, we rely on the wide range of choice within medicine to ensure that each student after graduation finds a career for which he is suited. Difficulty and disillusionment have arisen, however, when considerable numbers of graduates have had to enter careers which to them were second or third choices. We should be wary of the other extreme in which

selection for medical school would be determined by forecasting vacancies in different branches and recruiting on the basis of attributes thought appropriate to those branches.

CURRICULUM

From time to time there have been suggestions that there should be different basic undergraduate courses for different types of medical practice. The consensus in the United Kingdom remains that the undergraduate course should be common to all and that its objective should be to produce a basic doctor capable of pursuing any form of vocational training. I understand that this is the general view in European countries. At a recent Workshop of the Council of Europe note was taken that in some non-European countries the undergraduate course may contain as much as 50% of elective time and that students may graduate without any exposure at all to certain subjects in the traditional curriculum. The workshop resolved that "apart from reasonable opportunities for elective studies and apart from the possibilities to branch out into science degrees, basic medical education in European medical schools should be the same for all students". After the basic course and one year's hospital work the British graduate is entitled by law to engage in any form of practice. Whereas for many years such entitlement has only been a theoretical possibility in respect of specialist practice it is only very recently that the prospective general practitioner has been expected to have postgraduate training before entering practice. For this reason there has been and still is a tendency for medical schools to be attempting to produce at the end of the undergraduate course "safe general practitioners". The law should be altered and even before then, curriculum planners should consciously depart from that attitude and firmly take into account the factors of general professional training, specialist train-

ing and continuing life-long education. This leads to the question of what is basic for all — what is core? And who decides? An enquiry in 1970 of the Board of Faculty in the Edinburgh Medical School asked the question "Is all the material currently being taught in our curriculum essential for all our students?". It was divided into two parts. To part (a) which related to the respondents' own discipline, 12 said yes, 15 said no and 5 were not sure. To part (b) which related to disciplines other than the respondents' own, only 3 said yes, 16 said no, and 13 did not feel they had enough information to give an answer. Staff must get together and work this out. I heard it said recently that core Anatomy is "enough to enable the student intelligently to do a full physical examination of the patient". I thought that was quite good but it would need a lot of working out and could similar one-phrase definitions be given for core in other disciplines? It has been said that the emphasis in basic medical education should be on the basic science because if the student does not learn them then he never will. On the other hand there is good evidence that one learns best when one needs the knowledge and this is the main argument for a degree of integration. Basic medical education does not only have to be related forward to general professional and vocational training but backwards to secondary education. At present intending applicants to medical courses specialise in the sciences at school. This may lead to a loss of the general education so necessary for a rounded doctor in modern society.

Unless this deficiency in High School education is made good it must be compensated for at medical school. Exact content of a curriculum will vary in different parts of the world with the needs of the community to be served but the subjects to be learned must bear a relation to the total needs of the society and not simply the physical illnesses to which they are subject.

TEACHING METHODS AND TEACHER TRAINING

There is much talk and activity in training the teachers in medical schools and in Universities generally. This is important and it should not be assumed that every person appointed to the staff of a University, often on the basis of his research ability, is a born teacher. Teachers should certainly be given the opportunity and encouraged to make themselves familiar with modern advances and technical aids. Just as important, however, is that students should find out how to learn. We are no longer seeking to instill enough knowledge in the student's mind to enable him to pass his examinations. He must develop the attitude of mind which will ensure that he will continue to learn throughout his life. This needs different techniques and attitudes. We all learn best in different ways and at different speeds. Medical Schools must ensure that different learning methods are available and that the student receives guidance to find out for himself what suits him best.

CONTINUING EDUCATION

George Miller (1967) has said that continuing education should mean continuing self-education and not continuing instruction. The term 'life-long student' has been criticized (Brown & Uhl 1970) as being in one sense a harmful description in that it conjures up the idea of continuing to pour material into the vessel. If continuing medical education should be self-education as George Miller suggests, I believe that it should be continued backwards as well as forwards so that there is increased emphasis on self-education at medical school.

Medical students in the course of their self-reliant learning are becoming more and more part of the team providing patient care. This is good and contributes to the philosophy of the continuum of education. There is however a problem of attitude which is difficult to resolve. Pickering (1964) remind-

ed us in his Harveian Oration of the difference in attitude between a scientist and a physician — 'Ignorance and the awareness of being ignorant is the *sine qua non* of a productive scientist'. For the clinician things are different: his patients expect him to know everything and if in pursuance of the scientific approach to medicine he admits to ignorance his patient may well leave him and seek advice from another physician who knows or rather who says he does. How are we to ensure that our students retain an enquiring mind and a scientific approach and yet are able to give their patients confidence in their 'absolute knowledge'?

Another way in which the University — and only the University — can prepare the student for continuing education is by ensuring that he comes to accept assessment as part of the educational process and peer review and criticism as one of the privileges of professional life. Our trouble in the United Kingdom has been that our examinations and assessments have been largely punitive and that as a result our graduates may resent any suggestion that their work should, even in the interests of patient care, continue to be brought under surveillance. This does not apply so much to hospital practice where case conferences, teaching rounds and teamwork lead naturally to peer criticism. In general practice, however the graduate is, as we have seen, soon independent and until the very recent trend towards group practice, quickly became isolated. Now most new practitioners are either in a group practice or have hospital appointments or both and will remain accustomed to peer criticism. The older practitioners, however, even if now brought into a group or back into a hospital environment feel themselves to be at a disadvantage and will resent criticism. It is imperative to avoid any gap in the continuing atmosphere of self-criticism and of overt mutual assessment. The Universities could help by introducing medical audits and Problem Orientated Medical Records as part of the training in medical school. This and

continuous assessment and student assessment of teachers should go a long way towards establishing an attitude of mind which expects and seeks an on-going monitoring of service in the interests of patient care.

TEAMWORK

The Practice of medicine has for the most part ceased to be a simple relationship between one doctor and his patient. This raises many ethical matters of confidentiality and of the doctor/patient relationship. From the standpoint of education the question arises as to whether those who are to work together as a team should not have at least some part of their training together. The concept a "University of Health" has been suggested. All health professionals might train together in such an institution; selection to individual health care professions could be at a later stage; opportunities might be given to change from one course to another. The idea has its attractions but there are as

many disadvantages: educational entrance standards and detailed knowledge are very different for different members of the team; a University of Health would become isolated from other education just at a time when we are appreciating that "health" means much more than freedom from physical illness. Certainly the attitude of the medical practitioner must take into account the ever increasing importance of the role of other members of the health care team. Where education of different team members should begin to be joint is at the place where teamwork starts, namely at the clinic or bedside rather than in the preliminary and scientific aspects of education.

All these trends and problems must be borne in mind by teacher and student alike in the process of medical education. However, it remains true that more important for the well being of a medical school than any matters of curriculum or organization is that there should be good students and enthusiastic teachers.

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HOW FAMILY PLANNING CONTRIBUTE TO LOWERING OF MORBIDITY AND MORTALITY RATES

By Leung Ming Keung, Kevin.

This article has been selected as a special contribution from Hong Kong by the Subcommittee on Population Activity, International Federation of Medical Student Association, on the special occasion of the Asian Regional Workshop on Population held in Singapore 1975. The author had been invited to attend that meeting. He wishes to thank the Hong Kong Family Planning Association and the International Federation of Medical Student Association for sponsoring his trip, and the Dean of the Faculty of Medicine, University of Hong Kong for granting him leave on the occasion.

INTRODUCTION

Family planning affects mortality and morbidity in the following manners:

- I. Changes in the time of occurrence of pregnancies and the number of births have direct effects on the mortality and morbidity of the mother and her child.
- II. There are indirect effects on the physical, mental and social well-being of every member of the family.
- III. Family planning, via its effect upon population trend, will allow a better chance for every individual to be benefited by the community health services.
- IV. Methods of fertility control may have a direct harmful effect on health.

* * *

Family planning is not merely the regulation of the number of children. It is also the method used by married couples to arrange for the appropriate spacing and timing of pregnancies in such a way that the children are conceived at the least risk to the mother's life and health, and that every child shall be wanted and prepared for by the family. It may also include management of infertility, marital counselling and genetic counselling.

I. EFFECT ON THE MOTHER AND HER CHILD

The direct impact of family planning upon mortality and morbidity of the mother and the child is best discussed in the following manner:

A. A decrease in the number of children born

- (1) *On the mother:*
 - (a) Some contraindication to pregnancy.

The practice of family planning limit the number of pregnancies is an important measure for the management of females with specific diseases such as cardiovascular diseases, renal diseases and diabetes mellitus. Repeated pregnancies may aggravate psychiatric and neurological conditions and exacerbate any previous obstetrical and gynaecological conditions. Women suffering from trophoblastic diseases, carcinoma of breast, severe hypertension, recurrent toxæmia of pregnancy, haemolytic disease, previous serious obstetric injury, recurrent abortion, marked anaemia or malnutrition are not suitable to have further pregnancy. The threat to the life and health of the mother is immediate and the likelihood of a dead or defective child being born is high. There are also other relative contraindications. Examples include conditions where nobody can look after the child while the

mother is suffering from epilepsy or mental disease. Otherwise, development and growth of the child would be at risk. There is also an increased frequency of cleft lip with or without cleft palate and perhaps heart defects among infants born to epileptic women, particularly those taking anti-convulsant drugs during the first trimester.¹

(b) Ill effects of high parity.

It is well-recognised that maternal mortality is slightly lower for the second and third pregnancy than for the first. It increases with each pregnancy beyond the third.² A higher-than-average incidence of complications are found in grand multi-gravida during pregnancy, labour or puerperium: placenta praevia, accidental haemorrhage, prolapsed cord, abnormal presentation of the foetus, rupture of the uterus and post-partum uterine inertia with severe bleeding. A review of over 45,000 consecutive deliveries in Johns Hopkins Hospital, Baltimore, U.S.A. between 1869-1939 showed that women of high parity had a mortality rate three times higher than those with low parity.² This high morbidity continues to occur with grand multiparity even after modern obstetric care has decreased the mortality.³

High parity also has an association with nutritional deficiency. The physiological processes of pregnancy and lactation demand an increase dietary supply to keep the nutritional balance. Multiple cycles of pregnancy and lactation would jeopardise the health of both the mother and her infant. There are other statistical associations of high parity and disease conditions, e.g. cancer of cervix, diabetes mellitus.²

(2) *On the foetus and child:*

Studies in different parts of the world have shown that the risk of stillbirth, neonatal, infant and childhood mortality are high with the first births, following which they decrease only to increase again after the fourth birth.²

The relationship between large family size and high mortality may partly be environmental — overcrowding, inadequate diet and deprivation of maternal care. Longitudinal studies have also revealed an increasing incidence of upper respiratory tract infections and gastrointestinal infections with larger family size, presumably due to greater exposure and cross-infection. Intrinsic factors may play a part, e.g. the risk of Rhesus iso-immunization to the foetus increases with parity. Small-for-date and preterm babies are often associated with high parity and they have more complications such as severe anoxia, atelectasis, hyaline membrane disease, hypothermia and dehydration. Family planning gives parents the opportunities to provide a better start in life for each of their children by reducing the number of preterm and small-for-dates babies and by allowing more parental care to be directed to each of the children born. Such care may be vital to their subsequent growth and development.

Morris and Heady, in a nation-wide study in England and Wales, showed that the risk of death for comparable birth orders was higher for lower social class than for the high social class infants. However, the increased risk of infant mortality with parity was the same irrespective of the class.⁴ Thus, benefits of family planning are by no means limited to the poor.

B. The spacing and timing of each pregnancy

(1) *On the mother*

In addition to being an undue physiological stress on the mother's nutritional reserve as discussed above, frequent pregnancies at short intervals induce a definite higher risk to complications during pregnancy and deliveries. It is an immense physical and mental burden for the mother to take proper care of several small children at one time.

The time at which birth occurs in relation to the age of the mother is also important (more so for the first birth). The high risk group is when the maternal age is below 20 or above 35. Presumably the reproductive system of a female below 20 years of age may not be mature enough to bear the stress of pregnancy. For those over 35, this stress is not well tolerated also, e.g. some degenerative changes of the pelvic ligaments make them resilient. A study in Thailand showed that women over 35 years old account for 40% of all maternal deaths, though they had only 20% of all births.

(2) *On the foetus and child*

Neonatal mortality is lowest when the interval from the termination of one pregnancy to the beginning of the next is 2-3 years. A study in Punjab showed that neonatal and infant mortality is highest if this interval is less than one year, and tends to decline and remain low with larger intervals up to 4 years.³ On the other end of the scale, a number of studies showed that an interval of over 6 years would carry a much higher mortality.²

The incidence of diarrhoeal diseases, one of the principal causes of death in less developed countries during the first two years of life, is clearly associated with poor weaning practices, which often follows a short pregnancy interval.⁵ A child, whose birth occurs closely after that of the preceding sibling, may receive a poor start in life because of his mother's poor nutritional status. Whereas the baby who has been displaced from the breast and parental care by him often receives no adequate substitution of food and attention. The ensuing malnutrition is accompanied by a high incidence of other infectious diseases. Lack of parental care would deprive him of essential stimuli for intellectual development. Advanced parental age may play a role in the origin of congenital defects such as achondroplasia. It is also an aetiological factor in the occurrence of Down's syndrome (Table 1).⁶

Table 1. Risk of occurrence of Down's syndrome in relation to maternal age.⁶

Maternal Age	General population risk for Down's syndrome
15-19	1/1,850
20-24	1/1,600
25-29	1/1,350
30-34	1/800
35-39	1/260
40-44	1/100
45-49	1/50

C. Avoidance of unplanned pregnancy and birth

Unwanted pregnancies are economical and psychological burdens to a family. Many people seek for an abortion. Under inexperienced or untrained hands (which is always the case when the procedure is illegal) high mortality and morbidity is common, e.g. perforation of uterus, embolic phenomenon, sepsis. These potential risks still exist, but with a much lower incidence, for legal abortion. Avoidance of unwanted pregnancies by fertility control can do away all these complications.

With extramarital pregnancies, the maternal mortality rate and the infant mortality rate are higher than those of legitimate births. Children who survive the hazards of unexplained reproduction appear, to become more likely to suffer from a varieties of diseases, disabilities and chronic ill-health than those children in planned family. They are more prone to infection, malnutrition, and stunted growth and development.² Legal abortion has been practised in some countries in order to avoid the mortality and morbidity attached to unwanted pregnancies, e.g. Singapore and Japan.

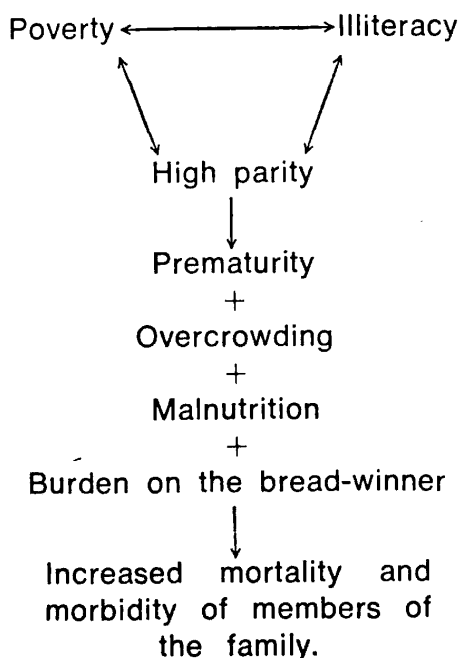
D. Genetic Counselling

Through genetic counselling for a couple with hereditary disease or handicaps, we can avoid passing undesirable genes onto the next generation. This may greatly relieve the burden on the parents who would otherwise have several debilitated children to look after, e.g. haemophilia, sickle cell anaemia and thalassaemia.

One of the best time to give advice on family planning is before a couple get married. Premarital counselling can decrease the incidence of consanguinity, which is important in the inheritance of recessive characteristics. In first cousin marriages, where there are no known instances of recessively inherited disorders, the risk is about twice that of the general population. If a recessively inherited disorder exists, the risk is much higher.⁷

II. EFFECT ON THE FAMILY

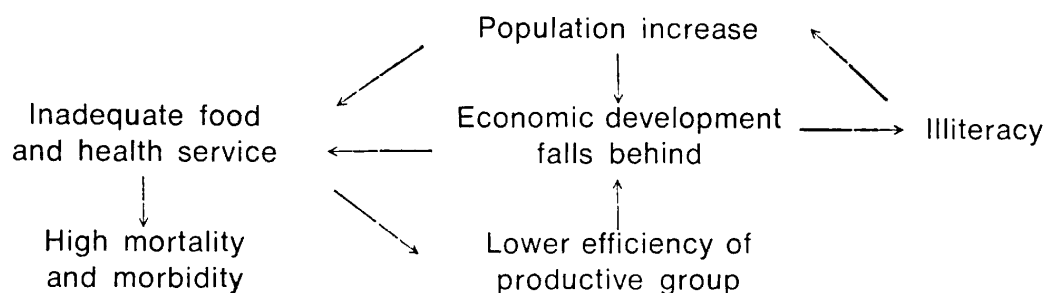
Emphasis needs to be given to the economic and social consequences of family planning in the family. With a given level of resources and earning power, the larger the family, the smaller would be the share per head. A vicious cycle may occur as follow:



High parity is usually associated with low socio-economic status, poor nutrition, poor hygiene and overcrowding. Low socio-economic status and poor maternal nutrition have a positive co-relation with premature birth and low birth weight.⁸ They are in turn linked up with higher risks of complications of pregnancy, labour and puerperium in the mother, and low birth weight, failure to thrive and infections for the baby. It has been reported that fathers of large families are more likely to develop hypertension and gastric ulcers.² A satisfactory per-capita income, maintained by proper family planning, can be a powerful weapon to break the vicious cycle and lower the morbidity and mortality. The health benefit may extend to other generations too. There is evidence that the early life of a mother, her childhood nutrition and her pattern of living, are related to her reproductive efficiency. Thus good nutrition and care given to one's children may do much to prevent problems of the perinatal period of the grandchildren.⁹

III. EFFECT ON COMMUNITY HEALTH

A large proportion of morbidity and mortality in developing countries is infectious diseases especially respiratory diseases and gastroenteritis. This problem can be solved by an effective programme of preventive medicine and public health. The quality and quantity of health services in each community is related to its state of economic development, which is in turn partly dependent on the population trend. Family planning would favourably limit the population growth for economic and health programme to catch up with the demand. The provision of satisfactory health services depend on the economic growth of the country. The productivity of the working class is a reflection of their health which in turn is governed by the health services. If population growth is unchecked, a high mortality and morbidity results as follows:



Nowadays, population growths aggravates much of the health problems especially in developing countries, e.g. overcrowding related to respiratory infections, tuberculosis and other specific diseases; pressure on the basic necessities of life. In the future, a significant drop in the mortality rate will be expected from a reduction of common infections such as diarrhoea and respiratory diseases that are superimposed on malnutrition. A nation-wide family planning

scheme would contribute towards a better economic condition and a lower mortality and morbidity especially in developing countries. A glance through the birth rate and infant mortality rate in various countries would show that places where family planning has become popular, e.g. Singapore, Japan, Hong Kong and Taiwan, are enjoying a lower infant mortality rate than places where family planning programme is not commonly practised (Table 2).¹⁰

Table 2. Population information for 1973.

<i>Name of country</i>	<i>Birth rate</i>	<i>Infant Mortality rate</i>
Macao	50	149
Guinea	47	216
Niger	52	200
Uganda	43	160
India	42	139
Pakistan	51	142
Indonesia	47	125
Japan	19	13
Singapore	23	21
Taiwan	27	18
Hong Kong	20	19

IV. MORBIDITY AND MORTALITY ARISING FROM FAMILY PLANNING

The fact that there are many methods employed for family planning means that none of them are totally satisfactory. Indeed, many of them have side effects detrimental to health. If practised blindly, methods of

family planning would lead to unnecessary mortality and morbidity. It should be stressed however, that under proper supervisions, the risks of mortality and morbidity appear to be small in comparison with the overall risks resulting from unwanted pregnancies.⁴

Oral contraceptives frequently cause nausea, headache, breast tenderness, depression and break-through bleeding. Most of these trivial to the users. Occasionally they are intolerable and affect one's daily routine. The most serious complication is thromboembolic disease and its possible fatal outcome. In the United Kingdom, Inman and Vessey had shown that mortality from pulmonary embolism or cerebral thrombosis was about seven times as high among users as among non-users.¹¹ In the United States, it has been estimated that the risks of hospital admissions for thromboembolism was 4-5 times greater for users than for non-users.¹² Further, most of the oral contraceptives are 17-alpha-alkyl substituted steroids which had cholestatic effect.¹³ Jaundice has been reported due to oral contraceptives.

Intrauterine devices may cause pain, bleeding and vaginal discharge, or even perforation of uterus in rare cases. Surgical sterilization has its own operative mortality and morbidity although they are very small. Among other side-effects arising from the practice of family planning, the emotional and psychological influences play a definite role too, e.g. fear of impotence after vasectomy, fear of fragility after tubectomy, religious believes against the use of certain contraceptive methods. Thus proper advice

and practice in the methods of fertility control is necessary to avoid any unnecessary mortality and morbidity.

CONCLUSION

The effect of family planning on health acts through the avoidance of unwanted pregnancies, the decrease in the number of children born, and the appropriate spacing and timing of pregnancy. Its role in lowering the mortality and morbidity rate should be looked at, not only from a view point of eliminating the risks associated with the process of reproduction, but also from concepts of its benefits to the positive health of the family and the community as a whole. The quality of life is improved as a whole. Furthermore, it requires properly trained personnels to direct the scheme in order to lower the morbidity or mortality arising from the practise of fertility control.

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CANCER INCIDENCE IN ELDERLY CHINESE IN HONG KONG

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The relationship between old age and an increased incidence of cancer is well known (Robbins, 1974). McKeown (1965) in an autopsy study of old age group in Ireland and Britain found an incidence of 20% of malignant tumours in a populations of above 65 years old. In U.S.A. a recent autopsy series has shown a high incidence of cancers of lung, prostate and gastrointestinal tract in old age (Suen, Lau and Yermakou, 1974). A review of recent literatures from China and Taiwan did not obtain information about the cancer incidence in Chinese population, this prompts us to undertake this study and to report the results.

MATERIALS AND METHODS

The present study is to review the autopsy files at the University Department of Pathology at Queen Mary Hospital from 1968 to 1971 inclusive. The total number of autopsies above the age of one month old in this period is 1,581 of which 553 cases that were 60 years old or above were selected for critical review. That the age of 60 years old was used as an indication of 'old age' is arbitrary but it is nevertheless in keeping with the criterion set by Monroe (1951). All selected cases were complete autopsies. Of the 553 cases, 242 bear one or two malignant tumours which were classified and grouped according to the histological types and the location. Organs that bear secondary tumours were excluded. Attempts were also made to correlate the possible premalignant lesions and the tumours but this was usually not possible. The clinical history in the autopsy files was also reviewed when indicated.

RESULTS

A total of 242 cases among 553 autopsies at 60 years old or above were found to have cancers, of these 153 (63.2%) were male and 89 (36.8%) were female, giving a ratio of 1.7.

The distribution and types of cancers are shown in the figure and Table 1. Cancer of this alimentary tract was the commonest tumour, comprising 38.5% of all malignancies. The incidence was higher in male (42.6%) than in female (31.2%). Apart from 5 sarcomas that occurred in the stomach and small intestine, all were carcinomas. The 36 carcinomas of oesophagus accounted for 37.9% of the alimentary tract malignancies and 14.6% of all tumours in this series. The hepatobiliary carcinomas constituted 18.2% of total malignancies. Of the 28 hepatocellular carcinomas, 20 occurred in men and all were associated with cirrhosis, in the other 8 that occurred in women only 4 were superimposed on cirrhotic liver. In the 17 cholangiocarcinomas, only 11 were associated with clonorchiasis. There were only 2 carcinomas of gall bladder, both occurred in women and both contained stones. Haemangiosarcoma of the liver was seen in a woman who gave no history of chronic exposure to chemicals or radioactive materials.

Carcinoma of the respiratory tract comprised 17.0% of the malignancies. The majority arised in the lung and that arised from the larynx accounted for only 2 cases. The incidence was distinctly higher in male but for adenocarcinoma alone the incidence was similar in both sexes.

Malignancies of reticuloendothelial system including Hodgkin's disease and leukaemia accounted for 7.3% with a similar incidence in male and female patients.

The 7 carcinomas that occurred in female genital tract accounted for 7.5% of all female malignancies and the 2 cases of prostatic carcinomas accounted for 1.3% of all male malignancies. The incidence of breast cancer in women alone is 5.4%. Cancers in other organs accounted for but a few cases.

There were 5 cases, 1 man and 4 women who showed double malignancies at autopsy. They are listed in Table 2.

COMMENT

The present series gives the relative incidence of malignant diseases that contribute to death in Chinese over 60 years of age. It is by no means the general incidence of malignant diseases of that age group which can only be studied with biopsies in conjunction with clinical data. Our findings indicate that among all malignant tumours that have caused death in aged Chinese, carcinoma of the alimentary tract tops the list and this is in agreement with the observations from the Western countries (McKeown, 1956; Mulligan, 1958; Elias and Lesnick, 1960). However, when individual organs are taken into consideration, carcinoma of oesophagus is particularly common in Chinese and accounts for 14.6% of all malignancies. On the contrary, carcinoma of large intestine including rectum in this series comprises only 6.9% which is distinctly less common than in Western countries (Table 3). Many known factors predisposing to colonic cancer e.g. familial polyposis and ulcerative colitis, are extremely rare in Chinese but they are probably not responsible for the high incidence of large bowel cancer in elderly Western people. Low residual diet and anaerobic bacteria in the gut has been thought as important factors in high incidence of colonic cancer in Western countries (Leading Article, BMJ, 1974). It would be of interest to look into the incidence of carcinoma of colon in Chinese of different socio-economic status and of urban and rural areas.

Liver cancers including hepatocellular carcinoma and cholangiocarcinoma accounts for 18.2% of all malignancies in the present series and the incidence is comparable to that of the same age group Chinese living in Singapore (Shanmugaratnam, 1956) but is very high in comparison with Western countries (Table 3). In the present materials, 24 out of 28 hepatocellular carcinomas are associated with cirrhosis (85.7%) and *Clonorchis sinensis* is present in 11 of the 17 cholangiocarcinomas (64.7%). This appears that the possible predisposing factors in these two cancers, i.e. cirrhosis and clonorchiasis occur more frequently than the data based on the autopsies from 1964 to 1966 reported by Professor J. B. Gibson who observed 59% of hepatocellular carcinoma were associated with cirrhosis and 6.2% of cholangiocarcinoma with clonorchiasis in the population aged above 60 years. This does not mean a change of causal relationship of liver cancers, particularly cholangiocarcinoma in this area because in our material the general incidence of clonorchiasis was not estimated. Chou (1975) in a recent post-mortem study found 60% of cholangiocarcinoma bear *Clonorchis sinensis* which is comparable to our result. Carcinomas of the extrahepatic duct including gall bladder are less common in Chinese and these tumours are often associated with stones. The incidence of extrahepatic cholelithiasis in Chinese has not been studied.

Carcinoma of lung accounts for 16.2% of all malignancies in this series and adenocarcinoma as well as anaplastic type are more common, each comprises 34.1%; not a single tumour in our series is that of oat-cell type. Our finding is in agreement with the study of 120 autopsies of lung cancer in different age groups of Chinese in Hong Kong by Lee and Ts'o (1963) who rated adenocarcinoma as high as 37.5% and squamous carcinoma 13.3%. In the present series squamous carcinoma comprises 26.8% of lung cancers. Whether this represents a waning incidence of adenocarcinoma or an increasing squamous carcinoma of lung in this area over a period of 10 years is not exactly known as the population make-up is different in these two separate series. It has been shown that squamous carcinoma of lung is related to smoking and environmental carcinogens but not the adenocarcinoma. It seems worthwhile to further investigate the histological types of lung cancer from both surgical and autopsy specimens in the past 10 years in Hong Kong so as to ascertain the changing pattern and the environmental role of lung cancer in this area.

It is of interest that in this group only 2 cases of prostatic carcinoma that were sufficient to cause clinical symptoms and were responsible for death. This accounts for 0.8% of all malignancies or 1.3% of cancer of man alone. The incidence of prostatic cancer is distinctly lower in Chinese when compared with that in the West. McKeown (1956) found 26% of prostatic carcinoma in her series in which 11% of cases contributed to death. In a sophisticated study of post-mortem study of prostate glands of same source as ours, Dr. C. W. Chan (1975) found about 5% of latent carcinoma of prostate in elderly Chinese.

SUMMARY

A review of autopsies of Chinese living in Hong Kong aged 60 years or older from 1968 to 1971 shows 242 of 553 cases have one or two malignant tumours that have caused death. In comparison with the studies from Western countries, carcinomas of oesophagus, liver and intrahepatic bile duct as well as lung are particularly common in Chinese while carcinomas of large intestine and prostate are distinctly low. Adenocarcinoma and anaplastic carcinoma of lung are more common in Chinese than other people but squamous cell carcinoma appears to have increased in the past 10 years.

The incidence of other cancers is comparable to those in the Western countries.

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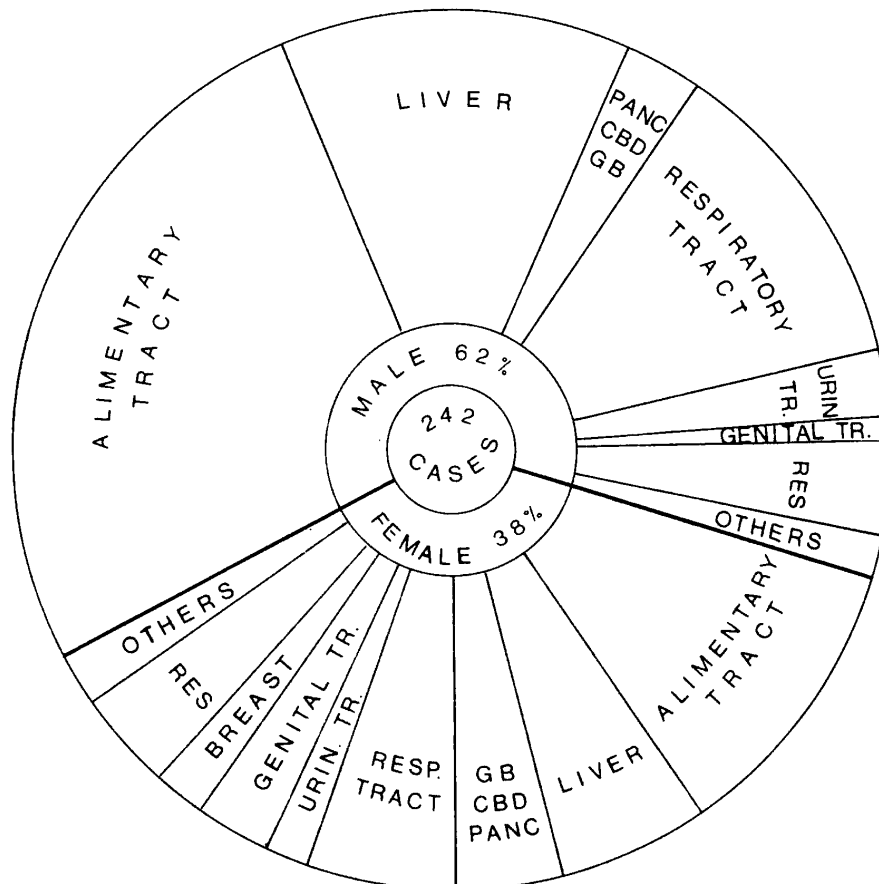
This study was carried out in the Department of Pathology, University of Hong Kong during the Summer, 1975. We are grateful to Professor J. B. Gibson for permission of using the material and to Dr. S. T. Chou for his suggestion and supervision of this study and preparation of the manuscript. We thank Miss Jenny Chung for secretarial assistance.

ADDENDUM

After completion of this study, the editorial of Lancet (28, June, 1975. P.1413) commented on the high incidence of oesophageal cancer in Chinese. The prevalence of oesophageal cancer in North China around Taihang Mountains appears to be related to the high contents of nitrosamines, nitrites, and secondary amines in the diet.

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The figure. Proportion of Different Types of Malignant tumours in male and female Chinese over 60 years old.

Table 1. The Distribution and Type of Malignant Tumours in 242 Autopsies

Location	Number and Percentage of Incidence		
	Male	Female	Total
Alimentary Tract			
Tongue, squamous ca.	2 (0.8%)	1 (0.4%)	3 (1.2%)
Hypopharynx	1 (0.4%)	0 (0.0%)	1 (0.4%)
Oesophagus			
Squamous ca.	22 (8.9%)	9 (3.6%)	31 (12.6%)
Anaplastic ca.	0 (0.0%)	2 (0.8%)	2 (0.8%)
Adenoca.	1 (0.4%)	0 (0.0%)	1 (0.4%)
Unspecified	2 (0.8%)	0 (0.0%)	2 (0.8%)
Total	25 (10.1%)	11 (4.5%)	36 (14.6%)
Stomach			
Adenoca.	24 (9.7%)	8 (3.2%)	32 (13.0%)
Anaplastic ca.	0 (0.0%)	1 (0.4%)	1 (0.4%)
Total	24 (9.7%)	9 (3.6%)	33 (13.4%)
Small Intestine, leiomyosa.	0 (0.0%)	1 (0.4%)	1 (0.4%)
Colon, adenoca.	5 (2.0%)	2 (0.8%)	7 (2.8%)
Caecum, adenoca.	2 (0.8%)	1 (0.4%)	3 (1.2%)
Rectum			
Adenoca.	4 (1.6%)	1 (0.4%)	5 (2.0%)
Unspecified	2 (0.8%)	0 (0.0%)	2 (0.8%)
Total	6 (2.4%)	1 (0.4%)	7 (2.8%)
Reticulo-endothelial sa.	1 (0.4%)	3 (1.2%)	4 (1.6%)
Total	66 (26.7%)	29 (11.7%)	95 (38.5%)
Hepato-biliary System			
Hepato-cellular ca.			
With cirrhosis	20 (8.0%)	4 (1.6%)	24 (9.7%)
Without cirrhosis	0 (0.0%)	4 (1.6%)	4 (1.6%)
Total	20 (8.0%)	8 (3.2%)	28 (11.3%)
Cholangioca			
With clonorchiasis	9 (3.6%)	2 (0.8%)	11 (4.5%)
Without clonorchiasis	3 (1.2%)	3 (1.2%)	6 (2.4%)
Total	12 (4.9%)	5 (2.0%)	17 (6.9%)
Haemangiosa. of liver	0 (0.0%)	1 (0.4%)	1 (0.4%)
Common bile duct, adenoca.	2 (0.8%)	1 (0.4%)	3 (1.2%)
Gall bladder			
Adenoca., with stones	0 (0.0%)	2 (0.8%)	2 (0.8%)
Pancreatic System			
Pancreas, adenoca.	4 (1.6%)	7 (2.8%)	11 (4.5%)
Ampulla of Vater, adenoca.	1 (0.4%)	0 (0.0%)	1 (0.4%)
Respiratory Tract			
Epiglottis	1 (0.4%)	0 (0.0%)	1 (0.4%)
Larynx	0 (0.0%)	1 (0.4%)	1 (0.4%)
Lung			
Squamous ca.	9 (3.6%)	2 (0.8%)	11 (4.5%)
Adenoca.	8 (3.2%)	6 (2.4%)	14 (5.7%)
Alveolar cell ca.	1 (0.4%)	1 (0.4%)	2 (0.8%)
Anaplastic ca.	10 (4.0%)	3 (1.2%)	13 (5.3%)
Total	28 (11.3%)	12 (4.9%)	40 (16.2%)
Lymphosa. of lung	0 (0.0%)	1 (0.4%)	1 (0.4%)
Total	29 (11.7%)	14 (5.7%)	43 (17.4%)

Location	Number and Percentage of Incidence		
	Male	Female	Total
Reticulo-endothelial System			
Leukaemia	3 (1.2%)	2 (0.8%)	5 (2.0%)
Reticulum cell sa. .. .	1 (0.4%)	3 (1.2%)	4 (1.6%)
Lymphoma .. .	3 (1.2%)	4 (1.6%)	7 (2.8%)
Hodgkin's Disease .. .	2 (0.8%)	0 (0.0%)	2 (0.8%)
Total .. .	9 (3.6%)	9 (3.6%)	18 (7.3%)
Urinary Tract			
Kidney			
Renal cell ca. .. .	2 (0.8%)	0 (0.0%)	2 (0.8%)
Squamous ca., with stones .. .	1 (0.4%)	0 (0.0%)	1 (0.4%)
Adenoca. .. .	2 (0.8%)	0 (0.0%)	2 (0.8%)
Total .. .	4 (1.6%)	0 (0.0%)	4 (1.6%)
Ureter, transitional cell ca. .. .	0 (0.0%)	1 (0.4%)	1 (0.4%)
Bladder			
Transitional cell ca. .. .	1 (0.4%)	2 (0.8%)	3 (1.2%)
Squamous ca. .. .	0 (0.0%)	1 (0.4%)	1 (0.4%)
Anaplastic ca. .. .	1 (0.4%)	0 (0.0%)	1 (0.4%)
Total .. .	2 (0.8%)	3 (1.2%)	5 (2.0%)
Total .. .	6 (2.4%)	4 (1.6%)	10 (4.0%)
Genital Tract			
Ovary			
Cystadenoca. .. .		1 (0.4%)	
Clear cell ca. .. .		1 (0.4%)	
Adenoca. .. .		1 (0.4%)	
Uterus, adenoca. .. .		2 (0.8%)	
Cervix, squamous ca. .. .		2 (0.8%)	
Total .. .		7 (2.8%)	
		(7.5% of female series)	
Prostate gland			
Adenoca. .. .	1 (0.4%)		
Unspecified .. .	1 (0.4%)		
Total .. .	2 (0.8%)		
	(1.3% of male series)		
Breast			
Adenoca. .. .		2 (0.8%)	
Unspecified .. .		3 (1.2%)	
Total .. .		5 (2.0%)	
		(5.4% of female series)	
Thyroid			
Follicular cell ca. .. .	0 (0.0%)	1 (0.4%)	1 (0.4%)
Papillary ca. .. .	0 (0.0%)	1 (0.4%)	1 (0.4%)
Anaplastic ca. .. .	1 (0.4%)	2 (0.8%)	3 (1.2%)
Total .. .	1 (0.4%)	4 (1.6%)	5 (2.0%)
Others			
Nasopharyngeal ca. .. .	1 (0.4%)	0 (0.0%)	1 (0.4%)
Jaw, squamous ca. .. .	1 (0.4%)	0 (0.0%)	1 (0.4%)
Malignant mesotheliolima .. .	1 (0.4%)	0 (0.0%)	1 (0.4%)
Squamous cell carcinomatosis .. .	0 (0.0%)	1 (0.4%)	1 (0.4%)
Total .. .	3 (1.2%)	1 (0.4%)	4 (1.6%)

Table 2. Five Cases with Double Malignancies

- Case 1
A woman, 79 years old, with alveolar cell carcinoma of lung; and transitional cell carcinoma of urinary bladder.
- Case 2
A woman, 77 years old, with papillary carcinoma of thyroid gland; and lymphosarcoma.
- Case 3
A man, 68 years old, with squamous carcinoma of nasopharynx; and adenocarcinoma of stomach.
- Case 4
A woman, 71 years old, with follicular cell carcinoma of thyroid gland; and clear cell carcinoma of ovary.
- Case 5
A woman, 83 years old, with adenocarcinoma of gall bladder; and transitional cell carcinoma of ureter.

Table 3. Comparison of the Distribution and Type of Malignant tumours in different areas

Country	New York, U.S.A.	Northern Ireland	Denver, U.S.A.	Hong Kong
Data from	Elias & Lesnick (1960)	McKeown (1956)	Mulligan (1958)	The present series
Age Group	From 64 to 94	Above 70	Above 70	Above 60
Total No. of Autopsies in the named age	730	1,300	—	553
	Male: 310	Male: 757	Male: —	Male: 326
	Female: 420	Female: 543	Female: —	Female: 227
No. of Malignant Incidences ..	119	325	260	242
	Male: 44	Male: 210	Male: —	Male: 153
	Female: 75	Female: 115	Female: —	Female: 89
Distribution and Type of Malignant Tumours				
Alimentary Tract				
Oesophagus	1 (0.8%)	17 (5.2%)	4 (1.5%)	36 (14.6%)
Stomach	23 (19.3%)	42 (12.9%)	36 (13.8%)	33 (13.4%)
Small Intestine	1 (0.8%)	—	2 (0.8%)	1 (0.4%)
Large Intestine	22 (18.5%)	73 (22.5%)	34 (13.1%)	17 (6.9%)
Liver	4 (3.4%)	—	3 (1.2%)	46 (18.6%)
Bile duct and Gall bladder	4 (3.4%)	—	20 (7.7%)	5 (2.0%)
Pancreas	4 (3.4%)	14 (4.3%)	18 (6.9%)	11 (4.5%)
Lung	14 (11.7%)	32 (9.8%)	22 (8.5%)	40 (16.2%)
Female Genital Tract	9 (7.6%)	—	8 (3.1%)	7 (2.8%)
				(7.9% of female series)
Female Breast	—	—	—	5 (2.0%)
				(5.4% of female series)
Prostate gland	2 (1.7%)	47 (14.5%)	33 (12.7%)	2 (0.8%)
		Occult: 38 (11.7%)		(1.3% of male series)
Urinary Tract (Kidney and Bladder)	8 (6.7%)	31 (9.5%)	16 (6.2%)	10 (4.0%)
Reticulo-endothelial System ...	6 (5.0%)	—	24 (9.2%)	18 (7.3%)

中國醫藥特輯



SPECIAL FEATURE
ON
CHINESE TRADITIONAL
MEDICINE

中國醫藥史

榮譽顧問：李冠民（香港大學生理系）

CHINESE MEDICINE AND WESTERN MEDICINE

By M. B. ROBERTS

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A pharmacologist in a place like Hong Kong is not infrequently asked by laymen and by scientific colleagues if he is doing any research into Chinese herbal remedies. The question is an understandable one, but not always easy to answer in a few words. Of course, much research has been done on Chinese herbs in various departments of Hong Kong University, and will, I hope, continue to be done, and some interesting findings have turned up. I often get the feeling, however, that these questioners are voicing an underlying criticism, and are hinting that we ought to be throwing all our departmental resources into the investigation of those fascinating products we see in the local medicine shops where, waiting only to be discovered, are panaceas for all the ills that western medicine still fails to cure or alleviate. I think that this implicit criticism deserves a full and carefully-argued answer, and, having been asked to write an introduction to the Elixir symposium on research into Chinese medical treatments, here is my opportunity.

First of all, I am not happy with the terms 'Chinese Medicine' and 'Western Medicine', which are in many ways misleading, and which should certainly not be regarded as antithetical. In fact, in China the two approaches to treatment are encouraged to coexist side-by-side and complement each other — no doubt a wise policy in view of the shortage of doctors trained in 'Western Scientific Medicine'. I do not like the geographical and cultural limitations implied by the words 'Chinese' and 'Western', and although better terms are not easy to invent, I would prefer to talk about 'Traditional Medicine' and 'Modern Scientific Medicine'. A little thought about these will show us that Traditional Medicine and Modern Scientific Medicine are not at all diametrically opposed, and that Modern Scientific Medicine has grown out of Traditional Medicine and can still draw upon it for inspiration and new developments. We shall see that some residual elements of Traditional Medicine, both material, psychological and theoretical, still persist in Modern Scientific Medicine. Moreover, it would be arrogant to assume that there are no nuggets of scientific truth to be mined from the various systems of Traditional Medicine at present practised in the world. Traditional Medicine in the advanced non-European cultures (Chinese, Indian, Greek etc.) incorporated precise observations of disease and therapy which were potentially or actually scientific. However, there is no doubt that Western European science, with its dependence on experimentation rather than on written authority, has led to a technological explosion unprecedented in the history of mankind. But more about this later.

Man has suffered from disease since prehistoric times and has looked for relief from materials readily available in his environment, such as plants and part of plants, minerals and even the organs of animals. This aboriginal or primitive medicine was inevitably closely linked with magical and religious rites, and its practitioners were often priests, medicine men or witch doctors. Such medicine is still to be found in Africa and elsewhere, and among ethnic minorities in many parts of the world. I suspect that their medical treatments were, and are, often highly successful. After all, many

diseases are self-limiting or self-curing, as we know to-day. The religious aura surrounding treatment would stimulate a marked placebo effect, a phenomenon which modern science recognises and can measure. Even 'civilised' people to-day are not immune from the appeal of this style of medical treatment. But more important, perhaps, certain plants do contain substances which possess potent pharmacological activities. Why plants produce active drugs is still largely a mystery to botanists but we can be thankful that they do. Less surprising is the fact that animal organs or tissues should contain active substances useful in the treatment of disease.

Moving from prehistory, in those more settled periods when civilisations arose in the great river valleys of the Nile, the Yellow River, the Indus and others, primitive medicine no doubt underwent its evolution to Traditional Medicine. The more useful aspects of early medicine were retained; clinical and therapeutic observations were made, often with great accuracy and prescience, and recorded in written treatises; pharmacopoeia were produced, some of which are extant to this day. Probably, in most cases, new therapeutic measures were discovered empirically. (It is salutary to remember that even after 120 years of scientific pharmacology most new drugs are discovered by trial-and-error.) Unfortunately, the human mind does not like the uncertainty of empiricism; it prefers an explanation, however fanciful or far-fetched. The findings of Traditional Medicine were rationalised into highly complex and speculative systems, remote from experimental reality and spun probably from the armchair musings of philosophers and mystics. These rigid systems, designed to explain the nature of disease and the efficacy of therapeutic regimes, became a stumbling block to later progress. The written word gathered too great an authority, leading to stagnation; this happened in all the older Traditional Medicines, and their speculative concepts clashed eventually with those of Modern Scientific Medicine. Nevertheless, some facets of Traditional Medicine still fascinate the modern mind to-day, and attempts are sometimes made to read greater prescience into them than is probably warranted by the facts. (For example, consider the suggestion that the concepts of Yin and Yang were a sort of inspired prediction of the two branches of the autonomic nervous system. The archetypal pairs of opposites — positive and negative, male and female, sun and moon etc. — are deeply embedded in nature, as well as in the mind of man who is also a part of nature. It is not surprising that early man should elevate these opposites into cosmic principles, and that modern science, too, should find them in the actual physical universe.)

Now what about Modern Scientific Medicine? Of course, as I have already pointed out, there are sound scientific data to be found in Traditional Medicine, and it is not to be implied that all Traditional Medicine is unscientific. It is the impact of organised science and technology on Traditional Medicine that has led to its evolution to Modern Scientific Medicine. Organised science, as opposed to casual observation, developed in that relatively insignificant promontory of the Eurasian landmass known as Europe. Why it flourished so mightily there, and spread its technological civilisation eventually over the whole globe, still remains a mystery, since many perceptive discoveries, observations were made in other cultures, often long before Europe had developed a culture at all. Joseph Needham has his own ideas about this, and why in China, for example, invention rarely led to innovation and the widespread growth and application of technology. In spite of historical and geopolitical accident, modern science should *not* be regarded as essentially 'western', and this is why I object to the term 'Western Medicine'. Science belongs to the whole world, it provides a global discipline which

transcends national, racial and geographic boundaries, and its fundamental ways of thinking can be grasped by any intelligent member of the human race regardless of his or her socio-cultural conditioning and background. Ideally, modern science depends on logical thought and constant experimentation. The heuristic approach is all-important; hypotheses are checked and modified continually in the light of new evidence; authority, however exalted, is not sacred. Technology is developed to its fullest extent, and progress is rapid, even exponential, whatever the social disruption involved. This is not, of course, an unmixed blessing, as we are all fully aware of today. Moreover, as far as Modern Scientific Medicine is concerned it must be confessed that we often fall far short of this idea. There are, for example, fashions in therapeutics, and clinical authority may still command too much respect. But that is another story.

So for whatever reasons, organised science, and therefore Modern Scientific Medicine, did develop first in Europe, and Modern Scientific Medicine naturally drew for its treatment of disease on those aspects of Traditional Medicine practised in Europe at that time, just as primitive medicine evolved into Traditional Medicine in early historic times. Many herbal remedies, for example, were taken over into Modern Scientific Medicine — digitalis, belladonna, opium, to name a few — and still exist within it, albeit refined by the scientific techniques of chemistry and pharmacology. Even in quite recent times, some remedies from Traditional Medicine have been incorporated into Modern Scientific Medicine (e.g., reserpine and vinca alkaloids). Moreover, systems of Traditional Medicine are by no means dead in Europe and in those areas which are really extensions of Europe (North and South America, Australasia), though they tend to be adopted there nowadays as an expression of crankiness or of dissatisfaction with the shortcomings of Modern Scientific Medicine.

An interesting situation has arisen where Modern Scientific Medicine in its fully-fledged state has been introduced comparatively recently into countries and cultures in which Traditional Medicine still flourished in a form indigenous to that culture. A conflict may then develop and be fed by purely political and xenophobic factors, with Modern Scientific Medicine being identified with, or at least tarred with the brush of, western colonialism. This is unfortunate, as there may well be some knowledge in that form of Traditional Medicine which could be usefully incorporated into worldwide scientific medicine, just as many aspects of the Traditional Medicine of older Europe became the basis for Europe's Modern Scientific Medicine not so long ago. As afore-said, much of modern Scientific Medicine is still empirical in nature, we often do not fully understand how drugs work, and the placebo as charm or magic potion still has its part to play in the modern therapeutic process.

So Traditional Medicine is not dead, even in Europe, and in many parts of the world it continues to flourish. When we remember that Modern Scientific Medicine developed from European Traditional Medicine, we should not seek to suppress it, ignore it or treat it as worthless in other areas of the world, just because it may still be associated with superstition or with outmoded and unscientific philosophies of the nature of man or disease. The recent interest in acupuncture, for example, is an excellent thing if it leads to serious, dispassionate efforts to explore its validity, to define its applications and limitations and to investigate its physiological basis (if any). As far as plants and herbs are concerned, traditional remedies in all parts of the world, including the most remote, are certainly worth further scientific study. Since plants tend to have

a relatively narrow geographical distribution, and species and varieties differ from one continent to another, it is to be expected that herbal pharmacopoeias will vary from one culture to another. This is important, as it implies the possibility of finding, even to-day, new pharmacologically active compounds in plants used in the less well-known traditional pharmacopoeias. However, I would suspect that there was far more inter-communication and exchange of ideas between cultures in the past than is often realised, and medicinal plants may well have been transported from one area of the globe to another in historic and even prehistoric times.

To return now to our hypothetical questioners, it is clear that in principle I am in favour of research into the herbs, plants and other materials used in Chinese and other systems of Traditional Medicine. However, I would have reservations about sinking too high a proportion of a single department's resources into such work. Research of this type has to be well organised, otherwise it can be disappointing, time-wasting and fruitless, and the chance of making original and outstanding discoveries is perhaps much less than many people think. We can understand this from what has been said above. Many herbal remedies have minimal potency even when genuinely active, and often their therapeutic actions are little more than a placebo effect. Plants containing substances of high pharmacological potency have probably been disseminated widely, and are already well-known globally. Again, the metabolism of plant cells, though seemingly more varied than that of animal cells, must have much in common biochemically, and so plants of different species may well elaborate the same end-products. Atropine-like compounds and cardiac glycosides turn up in many plants all over the world, to take two simple examples. A Ciba pharmacologist was asked a few years ago if his firm had discovered any new drugs from plants recently. He replied, 'Yes, reserpine!' The questioner said, 'But I thought you discovered that in 1954.' 'Yes', was the answer, 'But we have now rediscovered it in another plant!'

I said that such research has to be well organised for results to be worthwhile. Preferably, it requires a team of scientists with varying skills, botanists to collect and identify the plants, chemists and biochemists to isolate the active principles, pharmacologists to test and define their activities, and perhaps even clinical pharmacologists to perform trials in man. These skills cannot always be found in one small department, and there is no doubt a lot to be said for a well-endowed Research Institute (of Ethnopharmacology?) devoted solely to the investigation and evaluation of traditional herbal remedies. The Ciba story above reminds us, too, that the Drug Firms are interested in new drugs from plants, and have the facilities and the money to go into this field in a big way. They are certainly doing this, and future developments may well come mainly from that source.

So let us give two cheers for our modest endeavours to incorporate the remaining nuggets of Traditional Medicine into Modern Scientific Medicine. There may yet be hidden treasures to be found, if not in the medicine shops of Hong Kong, at least in some remote mountain valley or on some little explored plateau where an unknown plant is quietly synthesising a drug with a new structure that the organic chemist has not yet dreamed of. Who knows? But we should be prepared for many disappointments along the way

RESEARCH INTO TRADITIONAL MEDICINES AS A SERVICE TO THE COMMUNITY

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The place of pharmacological research, or that of other disciplines, into the actions of herbal preparations or techniques used in Chinese Traditional Medicine is no less important than that which has been carried out on the traditional medicines of other countries. The term Chinese Traditional Medicine can be taken to include not only the medicinal preparations that are used but also other techniques for treating disease e.g. acupuncture. It might be mentioned in passing that apart from investigating selected aspects of traditional medicines, research into folklores or widespread beliefs peculiar to a country, e.g. toxicities or fatalities believed to occur when certain substances are taken^(1,2,3), is also worthwhile pursuing.

One has, of course, to be quite selective and careful before embarking upon a research problem in this field. Although one's research interest is, in most cases, purely of an academic nature, one's choice of a project should also be guided by the possibility that one may find pharmacologically active substances which could have important therapeutic applications. In the case of scientific research into problems unassociated with medicinal purposes, as in folklores and traditional beliefs, either positive or negative findings are of equal value. Enlightenment of these communities, where ignorance has led to the perpetuation of blind beliefs, would indeed be a useful service to the society concerned. These contributions play just as important a role as those originating from conventional research. As long as there are in existence strong beliefs in the use of traditional medicines for the purported magical treatment of ailments, or of folklores of the type mentioned, which cannot be substantiated by scientific evidence, it should be the duty of a researcher to consider seriously the possibility of channelling some of his energies and expertise in this direction. This is, in fact, expected of a researcher as part of his service to the community which employs him. I know of at least one country where the academic staff of its universities is actively encouraged to investigate problems of local interest which are pertinent to their different disciplines. Research interests along these lines are given priority when financial support is requested. Such emphasis is fundamentally sound, and illustrates very clearly the saying that "charity begins at home". Trained investigators, many of whom are trained at the taxpayer's expense, are encouraged to make use of their skills to benefit directly the people of that country.

The detection of toxicities or fatalities in patients who have been treated with traditional medicines should lead to a thorough investigation involving researchers from the appropriate disciplines. Such toxicities or fatalities should never be treated as clinical or academic curiosities which proceed no further than the stage of a published case report where some form of conclusion may be reached but which is not substantiated by scientific evidence. A definite solution should be pressed for. The reason is quite obvious if authoritative information regarding the use, or legislative control, of a potentially dangerous preparation is to be given in the interests of public health.

The practice of Chinese Traditional Medicine in Hong Kong has, needless to say, a large following of believers. Thus, outside China and Taiwan, the colony can be considered the third largest source of these traditional medicines, many of which are worth investigating along pharmacological lines. Although many preparations found in the Chinese Herbal Pharmacopoeias contain ingredients that have been identified chemically, the known pharmacological actions of some of the ingredients do not appear to support the therapeutic uses claimed for these preparations. Situations like these should prompt the investigator to consider three simple questions. A) Does the preparation actually have the claimed therapeutic effect (in many instances more than one effect is claimed)? B) Is this effect, if present, due to some other pharmacologically active agent? C) Could one, or more, of the already identified ingredients indeed have the pharmacological effect in question? If one is, in all honesty, unable to provide a scientifically valid answer, then this, surely, is a problem which might be worth solving. The answer to the first question would be extremely difficult to give. As medical ethics prevents the use of such preparations on patients, we have, at best, to go by the reports of patients treated by herbalists. This does not, of course, provide a valid assessment as these patients were never examined by nor was their progress studied. The answers to the other questions can be solved reasonably satisfactorily as appropriate laboratory experiments can be devised. Although the possibilities of therapeutic usefulness cannot be predicted with confidence at this stage, as it is well known that the findings from animal experiments do not necessarily parallel those in man, at least some scientifically evaluated information would then be available. These sentiments should not be taken to indicate that the investigator should examine indiscriminately all the preparations that are available. He should select certain preparations, guided by factors like the popularity of the preparation, the seriousness of the disease it is used for, the consequences of the disease should the preparation be ineffective, the possibility of an active ingredient being clinically superior to those currently used, the possibility of an interesting pharmacological action, and so on.

When a pharmacologically active substance is found in substantial quantities in a herbal preparation, the possibility of local production should be entertained. This depends, of course, upon the clinical value of the substance, and whether local production is economically advantageous. The pharmacologically active substance found in a particular herbal preparation may not be new but the preparation could be a cheap source for the production of vast quantities of the drug. If research is carried out with this in mind, one is entering another area, that of primary production from natural resources of the country. Many countries have set up special institutions which are primarily concerned with investigations of local plants and traditional medicines. One of the aims of these institutions is to look for drugs and antibacterial agents which are clinically useful and which can be produced from inexpensive sources. Drug firms carry out similar investigations but to a more limited extent, depending upon the drugs they specialise in e.g. cardiac drugs, antibiotics etc. These organisations have the expertise and the equipment to carry out routine screening-type investigations. The individual researcher cannot do this and has to be selected from the academic, applied and practical points of view. The satisfaction of contributing new and useful information to the advancement of knowledge is usually what a researcher seeks. If what he has found is valuable, opening new vistas in therapeutics or being easily produced from local sources, then his ultimate goal is achieved. Such discoveries come, however, to a fortunate few. Most researchers have to be satisfied with achievements of lesser magnitude which are, nevertheless, important contributions to existing knowledge.

Now to turn to acupuncture, another branch of Chinese Traditional Medicine. Scientific research into acupuncture by conventional medical and pure science investigators, as evidenced by scientific publications, has been increasing steadily over the past 10 years especially over the past 5 years⁽⁴⁾. There is, therefore, abundant evidence from world-wide sources that acupuncture is now being recognised seriously as an effective form of treatment, and not a myth as it was once thought to be. Numerous scientific reports show that acupuncture, used either for surgical analgesia or for the treatment of some acute or chronic diseases, does have therapeutic effectiveness in man. Scientific evidence has also shown that acupuncture can elicit certain actions in experimental animals, which could explain its effectiveness in the conditions for which it is used. Such findings certainly exclude the element of auto-suggestion which might occur in man. The seriousness of current interest in acupuncture research is documented in a recent published by the New York State Commission on Acupuncture⁽⁵⁾. Looney⁽⁶⁾, in discussing the autonomic theory of acupuncture which if validated could unify the presently unclear mechanisms of action of acupuncture used for surgical analgesia as opposed to treatment of disease, predicts that an entirely new look might have to be taken at the present concepts of human physiology in general and the nervous system in particular where the CNS/ANS axis is concerned. Such an idea would have been scoffed at not very long ago. However, evidence nowadays dictates that we must pay serious attention to ideas like these, at least until they are unequivocally disproved.

Researchers from the different departments in the Faculty of Medicine of this University have, over the years, been investigating various aspects of Chinese herbal preparations and acupuncture. Research along similar lines has been carried out at the Chinese University of Hong Kong. The effects of acupuncture therapy have also been studied in other local institutions^(7,8,9,10). Being interested also in research into Chinese Traditional Medicine, by colleagues and I have explored some avenues in this vast maze of unsolved questions. One of these has been look into the effects of acupuncture on gastric motility and secretion in rats. These investigations were prompted by the fact that acupuncture is widely known to "cure gastric ailments" and the fact that there is no scientifically evaluated experimental evidence to substantiate such a claim. Our results have been most interesting and one of our findings has shown that acupuncture, at points comparable to those used in man, does actually have the effect of reducing gastric motility^(11,12,13). Although such an effect could provide relief in certain gastric ailments, the question of whether it is the sole mechanism, or really an effective one, is still to be answered. We have, in our investigations on some herbal preparations, also looked at one which appears to be well known for its haemostatic properties. Preliminary investigations have yielded interesting findings which justify further studies.

I have not discussed the history of how some of the active ingredients of traditional medicines of the various countries were investigated and subsequently adopted by Western or Modern Medicine. Many such examples are well known, and it is common knowledge that traditional herbal medicines do have the potentials of playing a role in contributing to the therapeutic armamentarium of Modern Medicine. In attempting to draw attention to the reasons which should generate some research interest in this field, I have looked at the subject from two main viewpoints of practical importance. That of contributing to the advancement of medical science with a direct

relationship to that of serving the community with our expertise. Research aimed mainly at finding and isolating agents which are therapeutically useful and which can be produced at low cost is usually carried out by governmental institutions and drug firms which are concerned with national or purely commercial interests. China appears to be the only country where a nation-wide concerted effort is being made to discover useful traditional medicines and techniques which might be integrated into Modern Medicine. Chairman Mao decreed in 1949 that such investigations be carried out on a national scale as he was aware that the enrichment of Modern Medicine, and that of putting traditional medicines and techniques on a scientific basis, would ultimately benefit the people. Acupuncture, with a history of about 5,000 years and the practice of which was considered illegal in China even in 1929, was, as a consequence of Chairman Mao's decree, studied extensively. An outstanding result of his foresight has been the formal introduction of acupuncture analgesia into surgery in China.

Whatever the motives are for research into traditional medicines such research is being carried out in many places, even in developed countries. Developing countries, where these investigations have not been carried out very much, obviously offer greater opportunities, and Hong Kong is one of these places. Research in this field not only would yield important scientific information but also would be one facet of community service where we could, most certainly, use our expertise to advantage.

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也來談談中藥研究

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中藥研究現在已經不是一個新話題，很久以前已經有不少學者從事這項研究工作，並樹立輝煌成果，近代中外學者及研究機構，在這方面，亦有驚人成就。

中國有五千多年歷史及文化，在醫藥上的成就，決不會比其他國家為落後，就最近針刺麻醉瘋魔了不少中外醫學界人士一事看來，就足以表示出中國醫學的成就，絕不是一般人心目中以為的那麼平庸和不科學化。雖然很多人仍抱有懷疑和保留的態度，但在事實面前也不能不承認「這種成就」的可能性，並不是單純的「宣傳」呢！

「醫」和「藥」是分不開的，單是談及中藥的研究而忽畧了中醫理論的研究，那將是一條很錯誤的途徑。中醫學之「陰陽五行學說」的理論觀點，主要在機體平衡。治療疾病是以「調理機體使恢復平衡」為主旨，而不是單純的使用「特效藥」。因此，中藥的研究，必須和中醫學的研究相管齊下，才能避免錯漏。而目前中醫學的研究可以說犯着這個毛病。須知如何去理解中醫為何使用某種中藥來治療某種疾病，已經是一個難以解答的問題，單純以西方科學觀點來研究中藥，所得結果與原用藥旨意恐怕又不免有分歧，況且，現代學者研究中藥，一般都是只着重研究其中一「味」藥。而事實上中藥是以「方劑」見稱，一方劑中往往包含幾種甚至十數種中藥，其治病的效能是此數種藥物之綜合成效或化學變化的作用。若單純提取其中一、二種作單獨研究，則其結果往往有謬異之處。不過，也不能因此而否定這種研究之成就，事實上不少研究成果已刊於各國文獻雜誌。目前亦只能循着這個方向進行，因為，中西醫的相互瞭解及其視點原則之結合，仍需一段時日。

既然現在大家對中藥研究已感到興趣，想信「中藥」中可能蘊藏着寶貴的「治病成份」，研究上其他困難自必不解自破，全面性的中藥研究，亦不日可成。

中國本草學發展之沿革

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1 緒論

本草是中藥的傳統名稱，它包括了植物，動物和礦物三類藥物，在中國，本草經歷代學者不斷的探討與研究，才發達成爲一種有系統的獨立科學。古代研究藥物的目的，主要是求「長生不老」，其次是在「食治却病」，最末才是「醫療疾病」。

在中國，藥物之應用於醫學，可說是始自殷商時代。嚴一萍一九四一年以研究甲骨文之心得著殷契徵醫，又在大陸什誌第二卷第八、九兩期發表「中國醫學之起源考畧」。結論曰「從卜辭中勾稽出來的古代醫學形態，總脫不了濃厚的迷信色彩，這是時代所限，但是根據這些材料，也可說明醫學確實是從巫術孕育而來，而殷商時代雖然已經建立起醫學的骨幹，醫與巫却没有顯然的分業，直到春秋初年的扁鵲，始有「信巫不信醫，不治」的話，可證到了周代才明顯的劃分。至於中藥中「湯液」的創制，史載是始於伊尹。

周代醫療學之進展，除藥物外，尚有鍼灸，脈訣及按。等之研究，曲禮記載「醫不三世，不服其藥」，孔疏解三世，一是黃帝鍼灸；二是神農本草；三是素女脈訣，又說是天子脈訣。其書傳於後世的，有靈樞經屬黃帝鍼灸，本草經屬神農本草，難經屬素女脈訣，雖然諸書都是後人假托的，但都是專門學者所著，其傳承派別，可以推允的。

醫學之發展與一般文化相同，經常受當代哲學思想之影响。三代以來，中國哲學思想整個籠罩在易的範疇內，易將宇宙之原理，萬象之變化，人生處世之道，統歸諸陰陽二氣之消長，以人天一貫，理物融合爲主。病因與治療之根本法則，即「審其陰陽，以別剛柔，陽病治陰，陰病治歸」。自戰國時代，五行之學說又興起，漢代承戰國之後，遂爲五行學說之全盛時代，並將五行學說與陰陽學說相混合，應用於自宇宙造化至日常人事生活之一切事物，同時亦成爲漢醫藥應用之理論基礎。綜合藥物應用之理論與實踐，乃使本草學發達成爲一套有完備系統之獨立學科。

2 傳統本草學之發達史

A、漢代本草學（公元二二〇年以前）

本草之成爲學派，最初見於文字記載者，爲在前漢成帝時（32—7 B.C.）。史記記事終於漢武帝天漢四年（97 B.C.），未見有本草之文字，故推論本草學之成立爲系統學派應在武帝至成帝之百年間，至於本草學以專行本之體裁出現者諒必在後漢以後，因在前漢書藝文志唯有黃帝內經，而無本草書之揚載。

現存最早的本草書，是神農本草經，在此以前的古籍，如詩經，山海經等，雖亦有關於藥物之記載，但都

不是藥物專書。神農本草經之作者及著作時期，迄今尚無定論，一般學者，多認為是漢末或以後的作品，神農本草經共分三卷，載藥 365種，按藥物之功用，分成上中下三品，其中所載藥物，大部份切合實用，如大黃瀉下，麻黃定喘，當歸調經等，其功效均經現代之藥理學家予以證實，全書記載病名 170種，及有關藥物之用法，配伍，制劑禁忌等簡要說明，故此書實為中藥學奠定了藥理的基礎。

後漢三國間，名醫華佗的弟子，吳普和李當之曾各著有吳普本草及李當之藥錄，惜二書經已失傳，僅能散見于後世各家本草書籍中。

漢代本草學之發達，除承接周秦先代的成就，及因本身國勢強大，經濟文化繁榮外，更因與波斯，印度及西域地方交通之開啓，據文獻記載，當時互相已有信使往返，入貢方物藥品甚多，因之彼方醫藥也就隨之輸入中國了。

B、魏晉南北朝時代（公元二二零至五八九年）

從魏晉到南北朝，在這一時期裏，由於連年戰亂，不僅本草的著作，極少流傳，就是當時所存的神農本草經，也很混雜散亂。當時有梁代之陶弘景把神農本草經進行了修訂，並增入當時名醫常用藥物365種，合成730種，並加以註釋重新分類，分為玉石，草木，虫獸，果菜米食，有名未用等六部，名為本草經集註（公元492年）。本草經集註，不但把當時的本草進行了一次比較系統的修訂和補充，並在辨別真偽和採集制藥等方面，都有一定的成就；並說明「春寧宜早，秋寧宜晚，花實莖葉各隨其成熟」的收採經驗。尤其對於制藥，更有詳細的開發。

C、隋唐時代（公元五八九——九六零年）

隋朝國祚雖然很短（公元五八九——六一八年），但本草著述及藥物品種，都有所增加，並對本草的培植，採集等更有進一步的發展，專著有種植藥法，種神芝，入林採藥法及四時採藥等書。

唐代由於生產力的發展，經濟與文化的繁榮，相應的促進了醫藥事業的發展，當時帝王對於醫藥方面甚為重視。如著名之新修本草（又稱為唐本草）就是在顯慶四年（公元六五九年），由李勣，蘇敬等廿二人奉命編撰的，該書是基於本草經集注，增藥一一四種合成 844種分二十卷，同時並另有圖經七卷，藥圖二十五卷同時刊行。因自漢晉以來，已和國外發生外交和貿易關係，至唐代則更為發達，除陸路交通運輸外，並發展了海運。中外藥物的交流，也得到很大的發展，因此唐本草也記載了不少國外藥品，使本草內容更加充實起來。

D、宋元時代（公元九六零——一三六八年）

宋時由於冶金術的進步及印刷術的發明，對醫藥的促進，也起了很大的作用，當時會在新修本草的基礎上進行三次整編，內容一次比一次更為充實，直至最後，再把元祐年間四川各醫唐慎微編寫的經史證類備急本草，經官方數度編修校訂，並命名為政和新修經史證類備用本草，出版於政和六年（公元116年），全書收藏藥物已增至1746種，內容有各家名方秘錄，乃至經史傳記，佛書道藏等書中有關藥物的資料，也都採錄。

唐宋時本草學重要的發展，除上述之綜合性本草著述外，更多專門性的本草著述，如唐代孟詵的食療本草，陳士良的食性本草，李珣的海藥本草，至宋代更為精進，有極多均將重點專對某一門有詳盡記述的本草書籍出版，其中著名的代表作有寇宗奭的本草衍義，朱丹溪的本草衍義補遺，張潔古的珍珠囊，李東垣的用藥法象，及王好右的湯液本草等。

宋代除了在本草著述方面的成就外，其次對於藥物炮制與制劑方面也有巨大的貢獻，如以「炮炙十七法」著名的雷公炮炙論，對後世藥物炮制，影響很大。

E、明代（公元一三六八——一六四四年）

明代上承宋代對本草研究方面的輝煌成就，本草學乃發展至極峯時期，初期有由太醫院劉文泰等編纂的一部本草品彙精要，後期則有由李時珍，集歷代本草學研究之大成，編寫的本草綱目，對於藥物品種的辨別，療效的分析，均用實物和實際經驗證明，它不單收載了各家的精華和研究成果，並對各家本草錯誤的地方，作了糾正和批判。

本草綱目第一版付印於1590年，出版於1593年，李氏則於全年較前時逝世，此書出版後不僅風行全國，並在十七世紀初期，就流傳到國外，目前已有拉丁文以及英法德俄等文字之簡譯或全譯本，此巨著不但已成為世界上有名的醫藥學文獻，並且也是研究動植礦物的參考資料。

明代本草除上述兩部外，尚有一部比較突出的，就是朱橚於公元1406年編撰的「救荒本草」，收載共 440 種可以代食充飢的草藥，並圖其形狀，著明產地，也為研究中藥值得參考的文獻。

F、清代（公元一六四四——一九一二年）

清代本草的著述很多，前後不下廿餘部，但多數為闡發本草綱目，專以實用為主，代表作有張之路之「本經逢原」，汪昂之「本草備要」，吳儀洛之「本草從新」等，諸書均以編寫簡明扼要著稱。清代最突出之一部本草書，乃係趙學敏於公元1765年編寫的本草綱目拾遺，係以收集本草綱目未載的藥物為主，全書十卷，載藥物 716種，如以本草綱目合計，則當時藥物已發展到2608種之多。

清代自十九世紀始，因西洋醫學的傳入，使中國醫學，日漸歐化，中國人民信仰歐美術者亦漸多，同時由於滿清政府之腐敗，內政不修，外侮頻至，國民鑒於西洋科學之發達，乃產生崇洋輕華之心理，傳統之漢醫藥亦遭唾棄，此現象持續了百餘年，可稱為本草學術之黑暗時期。

3 現代本草學之研究

中國本草學經上述百餘年之黑暗時期，將瀕滅絕，但因其時，我國海禁既開，東西文化交流大為增進，而西方學者對於本草亦日漸發生興趣，最初約在十八世紀末葉，傳入日本的所謂漢藥，已開始為荷蘭植物分類學家之研究對象，最著名的有Thumberg Siebold等，現仍常見於中藥的植物學名內，其後各國均漸多有學者與教士來華採集中藥的生藥及植物標本，或就地研究，或送回本土，供專家研究與鑑定，至十九世紀後葉本草的科學研究更進一步由化學家和藥理學家開始作化學成分的分析與藥性的闡明，最初主要是德國學者，後來日本也參加研究，並且不久便成為研究本草的主角。

約於1920年左右，國內的學術機關和科學界也開始注意本草，而從事本草的科學研究，三十年來由於我國科學家的辛勤工作已獲得很大的成績，最近廿年間更由於政府的不斷提倡與鼓勵，並釐定「新舊醫藥團結」與「中藥科學化」為國家衛生政策之重要部份，使中藥研究列入國家衛生科學研究計劃草案之內，因之中藥的科學研究乃進入新紀元，茲將其進展情形分敘於下。

本世紀二十年代的初期，國內有一著名之協和醫學院，經費係由洛氏基金會負擔，故除設備完善，並聘有歐美第一流教授們來華講學，當時藥理學系擁有之名教授如C. F. Schmidt, B. C. Read 和自美返國之陳克恢等，均對本草發生興趣。陳氏連續發表有關麻黃的生藥，化藥及藥理論文十數篇，立時引起世界醫藥界的興趣；因麻黃研究之驚人成功，世界對於本草研究之工作者乃有不斷的增加，其時日本科學家研究者最多，可是他們的論文多用日文發表，在當時並未能引起歐美人的注意。

蘆溝橋事變後，中日戰爭爆發，協和醫學院本身雖已停止中藥研究，但其人才則散處國內新成立之各學術機關，各當一面，繼續研究中藥，且不時發表有關研究之論文，及臨床驗證的論文發表

1949年以後我國政治方面起了很大的變化，可是對於中醫藥的科學研究，因政府大力的提倡與鼓勵，及中西醫藥界人士的合作與努力，迄今廿餘年，中醫中藥經過整理，挖掘，與科學實驗，乃使這一門數千年傳留下來的古老學術，獲得了趨向科學化的革新，目前國內已實行「新舊醫團結」及「中醫科學化」，並把這合併的中西醫療學術，稱之為「新中國醫學」，此劃時代性的新改革，去蕪存菁，兼取中西兩家之長，乃使新中國醫學超越過舊時的醫學多多，因之也引起歐美醫藥界的注意，近數年來所掀起的舉世針灸熱的洪流，就是一個顯明的例證。

至於中藥方面，極難研究，雖然如此，但根據1972的報告，目前至少有數百種經過科學化處理的中藥，已應用到新中國醫學上；與其他的西藥，共同的在全國的新醫療機構裏普遍使用，而以西藥形式所製成之成藥，僅計算出口銷售海外的就有 571種之多，其中確具有特效而最為海外人士廣泛購用的有雲南白藥，當歸，益母草，及其他各種補劑等。

舉凡進行任何一種學科之研究，參考文獻實為最初的一個重要步驟，在這一方面用科學方法整理中藥文獻，國人自己做得比較少，二十年代早期，袁淑範曾在民國藥學什誌上連續介紹了66種中藥之科學研究，差不多

完全都是日本科學家的研究成績。前文所提在協和醫學院教學之 B. E. Read，曾以數十年之時間，終生致力於中藥文獻之整理，編譯注釋，直至五十年早期逝世時，仍有遺稿留存於香港大學出版部。Read 之重要作品包括1936年出版與劉汝強合作之 Chinese Medicinal Plants from the Pen Ts'ao Kang Mu，共收中藥 898 種，除對於藥物來源，化學成份有所增述外，而參考文獻，亦列載甚為詳盡，其後又繼續釋注本草綱目中的獸，禽，鱗，介及金石藥物，出版英文本草叢刊，上述諸作，均以研究本草有價值之參考書。1944年湯騰漢，汪昭武在化學十週年紀念刊中發表中國藥化學一文中，亦曾列舉 124 種中藥之參考文獻，通常本草學研究者在化學方面的參考文獻多需檢閱 Chemical Abstracts 及日本 Tatsuo Kariyone 編著之 Annual Index of the Reports on Plant Chemistry，但一書兼有本草之生藥，化學，藥理及臨床報告之文獻，當首推劉壽山主編，於 1963 年出版之中藥研究文獻摘要，內容包括自 1820—1961 之 142 年間，各國中藥科學研究者所發表在三百九十多種刊物上之中藥研究論文之重點摘要，全書共精選四千多篇關於 502 種中藥之生藥，化學，藥理，臨床及少數植物學與園藝學之研究報告，此書實為本草科學研究不可或缺之參考書。

4 研究本草學之展望

中國傳統醫學於秦漢時已達最高峯，當時名醫輩出，代表中國醫學之三大古典，黃帝內經及傷寒論，亦於此時期完成，然自二千年以來，僅能循循漸化，未有顯著之進展。而使中國醫學停留在玄學階段，始終未能再演進為實證或科學之醫學。考其原因，主要是由於當時諸子百家之思想受抑，儒學思想為政教之標準，因而在醫學思想方面產生了兩種對應的矛盾現象，其一為尚古思想，篤信聖人君子唯生於古代，例如內經舉黃帝為著者，本草經以神農為名，同時並因崇古而趨向保守，尊重傳統，拒絕新學，其後更演進而陷於形式之尊重，並因過度尊重而變為架空論者，即絕對遵奉經典，不敢稍改，否則即屬大逆不道，例如篤信疾病之起因乃由於陰陽五行運行不和，五運六氣結合不順，一旦遭遇有與事實抵觸時，則引經據典，穿鑿附會，以圖自圓其說，其二是因醫療學術乃現實之學科，而中國醫學僅以個人之健康與疾病為對象，一切均以直接與治療為主，而對其他與醫學有關之基礎科學，毫不重視，例如二千年前內經所載之生理與解剖學，雖錯誤百出，但仍遵循應用，決無疑惑。中國醫學受上述崇古保守與實用性格之壓制，與一切有關醫學之基礎科學，背道而馳，故始終未能有科學性之發展。

中國醫學如此，連帶使中國本草學之發展也受了很大的影響，二千年來生藥學的發展，在明清時已有輝煌的成就，但本草學不能單以博物學而發達，其發展必須建立在良好之藥理學基礎上，古中醫藥學者因無基本醫學科學（生理及解剖學）正確之知識，故本草學之發展僅限於生藥學之成就，而未能使生藥在藥理方面有突出的貢獻。

近五十餘年，最初有陳克恢，Schmidt Read 等有識人士，開拓新研究途徑，再經後繼工作者之努力，中藥之醫療價值乃逐漸為人所知，而引起世界醫藥人士之注意與興趣，近來國內更推行「新舊醫藥結合」打破過去封建之藩籬，並積極進行中藥科學性之研究，故展望未來本草學之發揚光大必可預期。

至於目前中藥之研究方法，一般工作者均遵行正統之西藥標準研究法，即在實驗室中先分析本草之有效化學成份，繼以藥理學之實驗方法，究明其作用，然後經臨床實驗，必要時尚需化學研究改變其結構組織，以求增進效能與消除副作用，待最後臨床治療滿意時，則以化學方法在實驗室中大量合成，供醫療之用，由於中藥治療主要是以方劑應用，即每一藥方均包含多種藥物，此種複方治療，係中藥應用之一大特徵，因往往單味藥物療效甚為平凡，但一旦以方劑服用時，則效能會特別增強，因之如僅以現行之研究方法來研究中藥，則成就將限於少數有特效之草味藥物，而不能發揮方劑藥物在醫療方面之貢獻，因此依筆者私見，認為除上述方法外，尚須致力於複方藥物之研究，即先進行藥理研究，觀察改變方劑組成後之效果，以確定各藥物在方劑中之藥理效能，然後再以化學方法測定該等藥物之化學特性，及在方劑中所擔當之角色，並決定是否可合成或含有各效能之綜合化學物，最後則以此混合之藥物（或經化學合成之產物）應用於臨床實驗研究，如成績滿意，則可廣泛使用，若中藥之研究能在此兩方面並重進行，並益以中西醫藥一元化，則相信以中藥種類之繁多，效能之廣泛，加上西方科學之處理，必有助於醫學之進步及增進人類之福祉。

中醫基本理論

前言：

陰陽和五行是中醫學說最基本的理論基礎，而腑臟經絡則為中醫之生理應用根據。無論在生理，病理藥物，診斷，治療，預防等的理解，都不能脫離這一思想體系。

茲將中醫基本理論簡述如下：

（一）易經及黃帝內經說：

中醫的理論基礎是易經和黃帝內經，把人體與大自然的「動」連貫起來，作為診病的推論方法。易經乃我國古代分析宇宙間「象」、「理」、「數」的一部鉅著，欲從永久在變動的宇宙中，尋求出不變和應變之理，而以卦爻釋之。此種道理，用之于人生社會，是屬孔孟與老莊之學；用之于軍事，是為「孫吳之兵法」；用之于治病，是為「醫學」。中醫的最高原理，即「致中和」三字，失去均衡（中和）即成病，須藉「藥物」等外力之助，使之復返中和即是健康。

（二）陰陽



中醫運用陰陽的互相對立，矛盾統一的觀念，來分析生理，病理，辨證，治療的法則。中醫的「陰」「陽」並不是指某一固定物體和現象；而是某一性質，「動向」和「現象」的代表不同相對符號：例如內經中之「水為陰，火為陽」，金匱中之「言人身之陰陽，則背為陽，腹為陰。」換言之，陰陽就是將人體（甚至宇宙）間的變化，現象和機能變化，分成兩大類的兩個符號。所謂「陰中有陽，陽中有陰」，兩者是矛盾的，但又是統一的，相生相剋，支配人體機能平衡。即如自然界的電有正負，磁分南北。陰陽活動是指人體內的細胞之電力活動。（心電圖及腦電波檢查就是利用此原理。）陰陽平衡才能健康無病，否則就有「陰勝則陽病，陽勝則陰病」的變化。



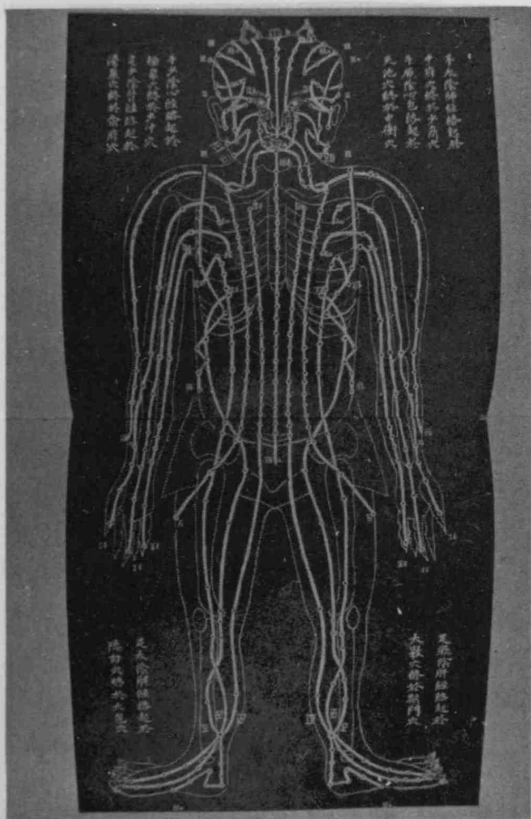
總括來說，陽(動象)是指「能」(ENERGY)；陰(靜象)是指「潛力」(POTENCY)，兩者隨著事物的發展而變化。

(三) 五行

五行指木、火、土、金、水五種物質，其中有相生、相剋的變化。用五行配五臟(即以木代肝，火代心，土代脾，金代肺、水代腎。)可說明五臟之間的生理和病理關係。嚴格說，五行學說的產生，是在醫學，星卜和神學之先。最初，古人認為金、木、水、火、土是組成世界一切物質的基礎，後來又根據其特性，說明一切事物互相聯系的道理和現象：將一切「寒冷潤下」的現象，性能稱屬「水」，「炎上灼熱」者為「火」，「條達動搖」為「木」，「嬌嫩怕火」者為「金」，「渾厚穩定」者為「土」。逐漸將五行發展成一套有系統的學說。(記載於三千年前的周書洪範篇)後來，到了春秋戰國時期，古代醫學家把它和陰陽學說同時應用到醫學上，借以說明醫學上的一切問題，成了醫學理論體系的一部分。在生理上，為了說明某些器官的特性和作用。古人用這些代表五臟，除了為明瞭生理作用外，更大的作用是在為了說明身體中各器官間的互相關係，五行相生相剋的關係中，特別強調，如果臟腑之間，失去了平衡，便失去了原來的正常機能，這正是中醫理論的中心點。

(四) 經絡

「經」即徑，如通達各處的路徑；「絡」有網的意思，如錯綜的網絲。經是直行的幹，絡是橫出的旁枝，它們互相連貫人體的上下，左右，前後，內外，從深出淺，從淺入深的把五臟六腑等聯繫起來，使人體成爲一個有機的統一整體，在中醫各科臨床實踐，特別對針灸臨床有很重要的地位，經絡的具體解釋，自今仍未能圓滿解答。有人說，經絡即是神經，即是血管，或是神經，血循環「機能」的匯合綫，或是一種新的物體，莫衷一是。最近，朝鮮的金鳳漢教授發現了「鳳漢小體」及「鳳漢管」，懷疑即是經絡，但仍未肯確證實。無論如何，經絡對中醫診斷，治病都有很大作用。「內經」記載：「經脈者，所以能決生死，處百病，調虛實，不可不通。」自古迄今，無論用藥物或是針灸，在處方或選穴上，沒有不把經絡作為根據的。經絡系統在大體上分「經」和「絡」兩大類。散佈在經絡之上是一些特殊的點(經穴)。人體內某一臟器生病，體表皮膚上某些穴位邊發生(電力上的)變化。那個器官的陰陽失去平衡(疾病)，該器官組織細胞的電力活動就會不足或過強(即虛、實)，體表經穴(一個或多個)也起陰陽變化。新法電針灸就是從該臟器所屬的經穴，吸出或輸入電子(瀉、補)，以調整該臟器細胞正負電力活動的平衡。經包括十二經脈(正經)，奇經八脈等；絡可分爲十五絡等。經絡中只有十二經脈和督、任二脈有穴位，針灸圖譜上所見的正是這十四經在體表的循行綫。



(五) 五臟六腑

「五臟」即心、肝、脾、肺、腎；「六腑」即胆、胃、大腸、小腸、膀胱，三焦。「臟腑」在中醫學上不但是一個解剖學的概念，而更重要的是一個生理學的概念。針灸理論中更把人體之機能分爲十二種，有六臟六腑。臟屬內故陰多，腑屬外故陽盛。外部的機能將體表的各種情況傳達至人體內部。這十二之數，正與一年十

二個月，一天十二個時辰相巧合。其中的機能有些是屬於局限性的各組細胞的功能，有些則是一般性的，如六臟中的腎上腺素激導性神經系統（ADRENERGIC NERVOUS SYSTEM），可加速所有臟的功能，並對所有腑都有抑制作用，而腑中的膽素激道性神經系統（CHOLINERGIC NERVOUS SYSTEM）的作用恰與上述相反。另外有兩個功能却通貫於整個機體及陰陽兩極，它們就是代表陽性（外向的腦脊軸）及陰性（內向的自律神經系環節及神經叢），它們影响陰陽的比率，進而決定兩性的行為模式。

（六）辨證方法

中醫診察疾病是以「四診」入手，搜集各種臨床資料，進而運用「八綱」和「臟腑」等辨證方法進行分析，歸納，作出正確的診斷和治療方案。四診，即「望」、「聞」、「問」、「切」四種診斷方法。「望」是觀察病者的神氣，色澤、形態。「聞診」包括聞聲音和聞氣味。「問診」注重病史，寒熱，大小便，飲食，睡眠等情況。「切診」是切「掌後橈動脈」、「分寸」、「關」、「尺」三部，主要掌握脈位（浮、沉）脈速（遲、數）脈量（大、小）脈力（強、弱）。中醫的辨證方法有「八綱辨證」，「病因辨證」，「臟腑辨證」，「六經辨證」，「衛氣營血辨證」等。「六經辨證」與「衛氣營血辨證」多用於急性發熱疾病；「臟腑辨證」，「病因辨證」為目前常用的辨證方法；然而，「八綱辨證」是辨證的綱領，是各種辨證的基礎，是各種辨證的共同本質的概括，「八綱」，即「陰陽」、「表里」，「寒熱」，「虛實」。「八綱辨證」就是從這四對矛盾的八個方面去歸納概括病變的部位，性質和邪正雙方力量消長情況。以「表里」辨別病變部位，以「寒熱」「虛實」辨別病變的性質，再用「陰陽」加以概括，作出正確診斷，庶可「對症下藥」以進行合理的治療。

病因分析

從病原學來說，外因是變化的條件，內因是變化的根據，外因通過內因而起作用。

外因：六淫（風、寒、暑、濕、燥、火）

為外界氣象因素，是外界致病因子。

內因：七情（喜、怒、憂、思、悲、恐、驚）

是情志變動而致人於病的主要因素

不內外因：如飲食不慎，勞倦太過，跌打創傷和蟲獸傷等

治病方法：八法（汗、吐、下、和、溫、清、消、補）

汗法：使病人發汗，以解散表邪

吐法：使胃內未吸收的有毒物質及體內痰液，通過涌吐排出

下法：通導大小便，消除腸胃積滯，寄生蟲或消除體內積水

和法：調整之意，增加人體抵抗力

溫法：用溫性藥物，補益陽氣，消除寒證

清法：用寒性藥物，抗菌、消炎、退熱

消法：消散的意思

補法：用補益藥物，增強或改善人體功能狀態



針 麻 簡 介

中國大陸推行大規模的針麻試驗開始於五十年代的末期。其間，各醫院都提出許多報告，互相交流經驗，討論及舉行會議，加以政府的鼓勵，故此，針麻技術進展極速，但後來由于政治因素，針麻試驗在六七、六八兩年間幾乎停頓，六八年後情況又為熱烈。原因實驗的對象已由動物進展為人，加上廣泛應用，針麻技術便日漸提高，臨床應用（病例）也續漸增加。因為針麻手術簡易操作，成功率高及針麻後的病人之傷口愈合較一般用藥物麻醉的病人為早，故此針麻即時引起世界各國的注意，形成了所謂「針麻熱」。

針麻的操作

針麻是用毫針刺在某些穴位，加以適量刺激來產生鎮痛效果。過程包括試針、術前給藥及針麻誘導。刺激方法多用低頻脈沖。針刺的部位一是根據傳統經絡系統取穴，選與手術區有關者扎針；另一是依神經綫分佈或脊神經節段支配區（Dermatome）與手術區的關係選擇針刺點，一般多用前者。於進行手術時要力求減少對敏感部位的刺激，切皮要快，否則病人常有痛感。

決定針麻效果的因素

不同部位的外科手術，其針麻效果有相當程度的差異。從神經系統來看，似乎手術範圍所涉及的脊椎神經數目越少則效果越佳，所以頭頸部的效果較好。病人的身體質素，精神狀態都影響針麻效果。通常，針刺後病人的得氣（針刺後所產生的麻、痠、脹、重等感覺）反應與效果成正比。決定針麻效果的主要因素如下：

（一）應激能力——應激能力是指病人潛在性的產生針刺效應的能力；應激力越強則效果越佳。至於應激能力的物質基礎（Physical basis）是什麼則仍未知曉。

（二）刺激部位——究竟人體什麼部位對什麼手術有特殊的鎮痛作用，迄今尚未有定論。根據過去國內的針麻經驗，多必以四肢末梢及頭部配合手術區的穴位，往往手術部位距四肢末梢較遠則效果較好。據古典的「六經標本」學說，以四肢末梢為本而以軀幹為標，認為本是作用點而標是受影響部位，故針刺本部可對較遠的軀幹部發生顯著影響。有人更將這現象比作槓桿原理，以本部為作用點，脊椎為支點，所以在本部加以刺激可因力矩作用而大大增強。耳針穴位的應用也極廣泛，效果亦好，廣華醫院就曾以耳針試用於戒毒而效果良好。耳針是最新發展的針刺療法，有顯著的鎮痛效果，具有一套特殊規律，但有關耳針的知識，目前還很淺薄。此外，在手術切口的兩端附近穴位扎針也可減少切皮的疼痛。

（三）刺激量——針刺是一種刺激，包括針刺的機械刺激及針刺引起化學物質釋放的刺激，如果使用電針則又加上電能量的刺激及電化效應的刺激。針麻需要足夠的刺激量才能收效，而刺激量是相對的，是以得氣程度為指標，得氣程度又與應激能力及穴位的特異性有關，因人而別。刺激量本身與刺激時間及刺激強度成正比，因人體接受刺激強度有一定限制，超過便有不反應，所以需用較長時間來達到強大的刺激量。刺激量與得氣的關係依 S 形圖式，就是在未達到得氣反應之前，刺激量的增減與得氣無關，但開始得氣之後，則刺激量稍

微增加便可使得氣反應大幅增進。最有效的刺激強度是剛過閾值（Threshold value），此時病人有強烈的得氣反應但又不致引起疼痛或不適。有人以為適當的刺激量是以能興奮中等粗度神經為準，不足時只能興奮較粗的神經，沒有鎮痛效果；過大時，又使較細神經興奮，感到疼痛。又有認為細和粗的神經之間有互相約制的作用，在正常情形下，細神經活動能抑制粗神經活動，而當人為地加以針刺或電流刺激使粗神經活動起來，則又可壓制細神經。疼痛感覺是由細神經傳導的，因此粗神經的活動可阻止痛的傳導，產生鎮痛效果。

（四）病人的信任——人體高級神經的思維活動，對生理功能有很大影響，病人對醫生及其醫療方法之堅定信心，往往就是一種有效的治療手段。針麻既然是在神經系統正常活動的狀態下施術，因此思維活動就更顯重要，恐懼憂慮都足以降低痛閾，影響針麻效果。

針麻的困難

針麻目前尚存有三大難關。第一，鎮痛不全，不能達到手術完全無痛。在所謂成功的病例中，並非表示所有病人完全無痛，尤其在切皮時常易引起疼痛。第二，肌肉緊張，因處於意識清醒的狀態下，腹部手術常使腹肌緊張程度大大提高，致手術進行困難。第三，內臟手術中因牽拉或查探內臟常引起疼痛反應，使病人不容易忍受。此外，還有呼吸道梗塞，噁心反應，縱隔撲動等手術中常見的難題，均尚無完全克服的辦法。手術後的傷口痛感及縫合緊張之肌肉的困難也需要考慮。

針麻的意義

自針麻的採用到現在，短短不過十數年，而針麻的辦法却由多針多穴發展到少針少穴，再發展到無針無穴。無形中否定了古代的經絡學說和古代的三百六十二穴，多方的證據都指出針麻的功效極可能是屬於神經系統的事。不過，針麻成功的最大意義是在部隊、農村以及戰時藥物器械缺乏的情況下代替正規的麻醉藥，並且提供了從傳統中醫經驗中得來的一種有用的生理現象，拓展了未來醫療方面的領域。

平心論中西醫

華顯

西醫能有今天的成就，有賴於當政者的支持，所以人材物力都很充備。西醫理論實事論事，絕不迷信，富於實驗求真的科學精神。學制、學員（如質素）也有一定的標準。

由於西醫理論側重於「物」，故在斷症時，易於忽略了「人」的因素。人的體質、性格各不相同。即使是同一個人，左右側的構造也非完全相同。舉例說，中醫以左腎為「腎」，右腎為「命門」（見附圖）。西醫則沒有這種區別，因為兩側的組織細胞及生理功能並無不同。但由解剖學得知，左腎與右腎的靜脈系統是相異的：即左腎上腺靜脈，左精系靜脈，都回到左腎靜脈。右側則否。西醫對這種大體解剖學上的不同，沒有特別注意。又例如由結核菌，腸結核，腎結核，不論左側右側，男女老少，西醫都用鏈黴素及撈得治（INH）去治療；而中醫則端視個人體的不同而下藥。這是由於中西醫學理論不同所演變出來的醫療技術相異的結果。

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HUANG TI NEI CHING SU HEN

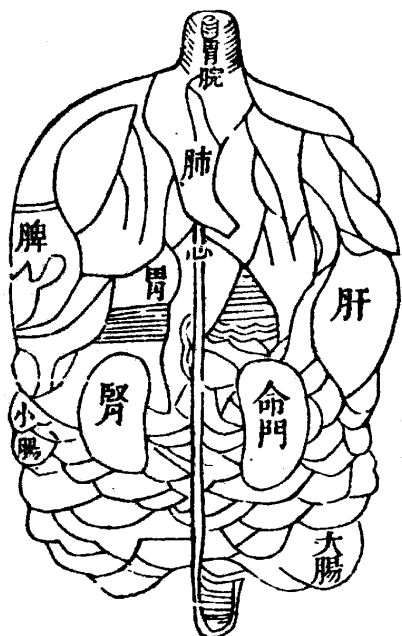


FIG. 10. POSITION OF THE FIVE VISCERA, THE STOMACH, THE LARGE INTESTINES, AND THE SMALL INTESTINES.
The kidneys are indicated as the seat of the imaginary organ, the 'Mingmen' (命門). (From 'The Yellow Emperor's Classic of Internal Medicine', p. 100.)

人體結構、疾病和藥物之關係，至為複雜，再加上外在情況的影響，使許多臨床現象無法用現存之科學理論來解釋。例如何以哮喘病，關節痛多在寒冷時發作？肺結核病常在黃昏時發熱，懷孕早期的婦女多在早晨嘔吐？凡此種種，用刻板的解剖學；病理學來解釋，也難以令人滿意。

許多病症的原因和病理轉機至今仍未有頭緒。阿司匹靈治療風濕性關節炎，取何轉機，不能確定。微量的奎寧，在人體十多磅血流中，竟可以癒瘧；六〇六之治療梅毒亦如是。諸如此類的問題指出，科學雖然天天進步，未知的事還是多著；這點指出了臨床經驗的重要。

中醫雖是當今之世最古老，最完整保存下來的醫學，但它距離被普世「公認」的日子還很遠。百年動蕩中華，加上中醫本身的先天缺點，窒息了它的前進。但中醫有兩千多年的歷史，它的價值是可以一筆抹煞的嗎？

中醫積有豐富的臨床經驗，這是不容置疑的。華佗最先使用「麻沸散」作為施行外科手術的麻醉劑，使用無機化合物汞劑和碘劑治病，及用含碘豐富的海藻治療癩甲狀腺病，比歐洲早了一千多年。

至如傷科的正骨術，有摸、接、端、提、整、按摩、牽引等八法，在臨床上極為成功，它的療效高，方法簡，療程短，更是舉世聞名的。

中醫對預防療病方面很早已有明確認識。戰國時已開始有下水道，消滅害蟲等衛生行動。在十六世紀時就有人痘接種，用痘衣法，痘漿法，水留法和旱留法等多種接種術，對預防天花起了一定的作用，此舉實為世界免疫學的開端。

中醫取材容易使用，經驗豐富而少副作用，加上療效好，可減少一些外科手術。中醫辨症思治，注重整體治療，病人的體質，氣候和地理環境亦有兼顧。針灸易學易行，病人不必服藥，不太受到經濟作業，以及環境的限制。如中醫有桑葉、薄荷等藥發汗，西醫有阿斯匹靈發汗，就不必用阿斯匹靈打倒桑葉、薄荷，使鄉間病者非走十多里路遠去買西藥不可。

中醫還有一個特色和優點，就是它的普遍性。一般中國老百姓醫學常識，某種食品對某種病可食或應忌食，亦說得很多。



(華佗剖骨療毒)

一般人指摘中醫「不科學」，那是很片面的。中國在三千年前的周朝就已設有醫官、食官（周禮）專司民間醫藥及食物的紀載。距今一千七百多年前，華佗已曉得用酒加麻沸散口服作麻醉用（後漢書卷八十二華佗傳）〔英國到一八四七年才由單伯森氏發明麻醉劑〕生理和心理的關係，中國醫書早已詳述，例如息妄念以養心氣，絕躁怒以養肝氣，寡言語以養肺氣，節飲食以養胃氣，淡色欲以養腎氣等。在西醫方面，對此類問題之研究，尚為近世之事。針灸為中國獨創立一種醫學，完全用物理方法治療，而且製有銅人，以示穴道所在，表面解剖學可見辦甚進步了。

針灸銅穴銅人像

很多人體秘密，無可隱言，都給西醫解決了，但治療上仍多束手。因為治療多憑經驗、科學往往不易摸索，而中醫累積了兩千多年的寶貴經驗，所以有時連西醫也束手的病症也給

中醫治好了。茲舉數例如下：

(一) 胡適之在三十歲左右，患慢性腎炎，經北京德國醫院，當時的內科權威克利醫生診治，認為無法治愈。胡適之先生醉心西方文化，對傳統中國文化有點輕視，尤其是他以為中醫既不科學又無精密的檢驗等；本不十分相信。但經不起朋友及江夫人的催迫，乃求治於中醫陸仲安。陸先生乃以大劑黃芪，黨參等等治愈，至今其處方仍流傳於世。

(二) 一九五五年左右，石家莊乙型腦炎大流行，一位蘇聯工程師不幸染上，那時西醫出盡辦法，仍高熱昏濟，危在旦夕，乃請中醫會診。一位老中醫用火劑白虎湯數劑治愈。全國的西醫為之震驚。聽說當局還獎賞那位老中醫人民幣二萬元，事載于中共出版的書報。

此外哮喘病，西醫很難斷根，中醫往往可以。癲癇病，中藥的治愈率也很高。風濕病、胃潰瘍、中醫的治績都很不錯。曩者提出個別的治驗例，恐有失信，更將根據近年中國大陸經科學工作者，中西醫學專門學者的臨床實驗，病例多先經現代醫學的藥物進行治療，無效或微效而改用中醫中藥治愈或好轉。

(一) 急性胰臟炎 (Acute Pancreatitis)

西醫：真正原因不明，酗酒為誘因，有時伴有胆道結石、細菌傳染或胰臟痛腫。病理機制為胰腺管口阻塞，胰液外溢入四週胰組織引起化學性炎症，胰組織出血或壞死，成為慢性病，易復發。化驗檢查：血及尿中胰澱粉酶 (Amylase) 含量增高。保守治療死亡率為百分之十至百分之五十。

中醫：天津醫學院附設醫院于一九六四年分析三百病例：其中十五例行手術，二百八十五例用中藥「大柴胡湯」、「清胰湯」等治療，效果百分之七十二。死亡率百分之一點三。觀察一年後復發率為百分之四點二。文獻見於一九六七年十二月中國醫學雜誌英文版

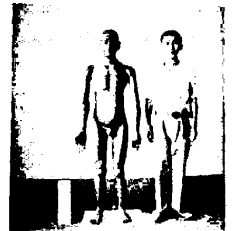
(二) 支氣管哮喘 (Bronchial Asthma)

西醫：原因不明，過敏或傳染為誘因。病理機制為細支氣管壁痙攣，使管腔變狹，病人呼吸困難，反覆發作多年後併發肺氣腫，最後死于心肺衰竭。診斷不必特殊儀器，病人自己可以告訴醫生是怎麼回事。治療用支



上面針灸銅穴銅人，系明銅正德八年(1443)鑄製，身長188.5厘米，耳寬27.5厘米，體重729.5斤，全身共有穴位666個，無不應驗。穴位有孔鑄可刺人，能準確對準穴位。中國科學院針灸研究所已於1956年仿製複製，以供針灸學家的研究。(南京中醫)

下面這件銅人像，是戰日本國立博物館，日本天皇是山田隆上的，戰時代，戰跡不明。全身共有銅穴，中間等處人的銅針骨形列列之正體像，可分為十一元。
身長146公分，胸圍0.89公尺，重約0.80公斤，山科銅像中重約0.81公尺，山科銅像重約0.59公斤，胸圍等則中重約0.17公尺，足圍0.39公尺，胸圍0.29公尺。
這件銅像，凡用銅像證明銅像，能穴名數，日本天皇的銅像有0.33厘米，共365穴。



(銅人像)

氣管擴張劑、鎮靜藥、腎上腺皮質激素，無法根治，一拖數十年。

中醫：上海第一醫學院的中醫、內科、生化三部門于一九五七——六〇年用「金匱腎氣丸」及「六味地黃丸」治療七十病例，療效百分之八十四至百分之九十五。文獻發表于一九六七年三月中國醫學雜誌英文版。

（三）、血栓性脈管病（Thromboangiitis Obliterans）

西醫：原因不明，吸煙為誘因，病理機制為四肢末梢（多發于下肢）小動靜脈及神經發炎，使血管腔變窄，血液供應不足，指趾缺血易致傳染壞死。易成慢性，診斷不難。治療用保守療法，一般行交感神經切除術，重者行截肢手術。

中醫：山東濟南中醫學院于一九五九——六五年用「四妙活血湯」、「犀黃丸」等治療一百三十六病例。基本治癒率百分之五十五，全有效率百分之九十三點四。其中只有一例切掉一側姆趾。文獻見于一九六八年一月中國醫學雜誌英文版。

（四）針刺麻醉：這是醫學史上極重要的成就，不僅是醫療技術上的一項重大革新，也可以藉此證明古典經絡系統。中醫理論的陰陽、表裏、寒熱、虛實、切脈、望診等只有用經絡系統才可以解釋。

目前西醫所用的全身麻醉，那具麻醉機器重約一百公斤，必須經常準備各種大小型式的氣管插管，隨時供給氧氣氮氣。更不好的是有時發生預料不到的合併症（全身及局部麻醉皆如此）。

中醫雖然有很多優點，但它也有很多極嚴重的缺點。

中醫最嚴重的缺點，就是歷來中醫學者都缺乏西醫那種「求真」的精神。陰陽五行的理論用了數千年，雖有價值，但很少有人去證明它、改進它，以適應新的醫學問題。一切論據，都以古人為歸依，不敢稍有離經畔道之舉。而舊理論既未必真確，且加以年湮代遠，傳訛舛錄，往往支離破碎、流為迷信。中醫理論最大的破綻，就是不能做到如王船山所云：「有就事以窮理、無立理以限事。」中醫往往「立理限事」，故此難離穿鑿附會。如建立一種原則，酸主斂、辛主散……色白入肺，色黑入腎……等等。定凡酸的東西，都有收斂的性能，但阿斯匹靈是酸，發汗而不收斂。辛主散還有點道理，因為辛的東西都會有揮發油的發汗作用。這是巧合，不足為訓。色白入肺、色黑入腎的藥何嘗都是入肺入腎呢？

中醫的術語欠缺準確性，充滿玄學氣味。記得中共建政後，大力提倡中醫，強迫西醫學習中醫，並將中醫請進醫院內，和西醫作臨床研究。但主持中醫研究的老中醫是保守派，拿五行繁露等學說來教西醫師，又把西醫師嚇走了。例如「肝火旺盛」、「丹田」、「腎虧」等，都是古人創造的，意不能按現代的字義來解，「腎虧」不是腎功能衰竭（Renal failure），而是指陽萎（impotence）。一個心力衰竭的病人，他的病徵是脈微弱，氣喘急，浮腫。中醫用強心利尿的「真武湯」，稱這種療法為：「日麗中天、陰鐘四散」、「益火之源，以消陰翳」，用火和太陽來比擬陽藥附子（細辛）。

中醫識症不識病，或識病不理病，忽畧病原的治理。西醫側重病原治療，惜藥多副作用，二者各有所失。中醫診症往往靠直覺判斷，所謂「醫者意也」，神而明之，極需要「天才」，當然不及體溫針、心電圖、愛克斯光、生化試驗等精密可靠。

中醫制度缺點亦多，海外中醫缺乏團結良莠不齊，各有各的祖傳秘方，甚至傳子不傳女，自立門派，不肯公開研究，交換工作經驗，限制新知的追求。雖然目前已出現有中醫藥的現代化研究，教育和學習，但尚未能普遍和深入，老一輩的中醫學者，抱殘守缺的思想還很嚴重，他們以「保存國粹」和「吾道一以貫之」為理由，拒絕接受現代科學，這種固步自封的成見，為中醫藥發展的主要障礙。

現在的中醫藥學研究學校，無論在行政制度上，教授課程上，師資等各方面，許多都不夠完善。學生程度亦甚為參差，影響教學進度和標準。課程方面，雖有解剖學、生理學、病理學等學習，但內容也嫌膚淺，不切實際，仍然着重於經典性書籍的理論，硬記各方劑的組成，同時，對於基礎學科的教學仍不夠重視，如藥物學、方劑學等，還局限於傳統的分析研究，未能代入現代化學成份，藥用成份的分析。這是引致現今中醫學（指海外而言）停滯不前的最大因素。

當前中醫學的發展形勢

一部分現代中醫學者，遠在數十年前，已深深體會到中醫的各種流弊，並開始著手進行改進的工作，到現在顯著的改變有下列幾方面：

(一) 對藥物進行化學的定性和定量分析研究，因而對每一種藥的成分，藥用成分和性能的認識，已有初步的成績，這方面中外人士皆有所貢獻，其中以日本最為熱心。此項研究使中醫藥走上了科學化的道路上。

(二) 中醫的研究，已能打破傳統的師承觀念，多方面的學術均能予以研究和吸收；同時也並非像以往那樣地純粹研究經典性的學術書籍，而是亦從事於人體生理學和病理學的探討。這是由於西方醫學的滲入使人們認識到中醫本身的缺點，因而加以改進。

(三) 部分的中醫從業人員，已使用現代的醫療設備，應用於診斷和治療上，如探熱針、血壓針、聽診器、X光透視等等，尤以X光透視對於跌打骨科醫生檢視骨折情形，幫助甚大。

(四) 中西醫學的結合——這點留在後面再詳談。

可是現代中醫的發展情況和展望，在港、台和大陸三地極不相同，現分述如下。

在香港，因為「南京條約」規定英國政府不得干涉華人以傳統方法治病，所以中醫不受管制，雖有很多中醫學院和中醫師公會，但多各自為政，在入學資格和課程標準方面都沒有統一的規定，形成中醫人數極多，除少數外，中醫師水準皆不高。程度上參差不齊，又沒有管制，可以隨便賣廣告，形成中醫界頗為紊亂，加上藥價不斷上漲，更加造成發展上的障礙。因此中醫學在香港仍談不上有系統的發展。

台灣方面，中醫事業亦不能順利發展，重要原因之一是缺乏中藥。因為中藥主要須依賴自香港轉口的大陸輸出。而當局對中醫學的發展亦不熱心，只建立了一所只具形式、不具規模的「中國醫藥研究所」，經費却十分少。此外有一所大學級私立的中醫學校、中國醫學院。有一部分具現代科學知識的人，包括西醫在內，對中醫的研究頗有興趣，而不少中醫新血亦從他們造就出來。

至於大陸方面，現階段的中醫政策，似乎把重點放在對中醫學作有系統的整理工作。十多年來，許多西醫學院中醫的班級設立起來，有完整的中醫教材，而高級的中醫學院，亦開設很完善的現代醫學基礎課程。而中醫學院分許多等級，由嚴格的四、五年課程的正規學院至講習班不等。而各大城市的醫院，有的以分組方式治病，觀察比較中西醫的治療效果，並作總結。以上的措施，皆為中西醫結合的政策鋪下了基礎。現在就談談中西醫結合。

西醫結合治療疾病

中西醫孰優孰劣，以及中醫應否完全為現代醫學所取代的問題，一向都引起了爭論。事實上明顯地中西醫各有優缺之處，偏袒於一方面排拒另一方決不是明智之舉，正確的態度應該是儘量利用這兩門寶貴的學問去消除疾病，促進醫學的進步。現在大陸正積極推行中西醫結合，就是要在醫療上採取中西合一制；既不否定傳統

的中醫藥，也不拒納西方的實驗醫學；中西醫生共同工作，兩方面互相學習；用現代科學方法分析和比較中西藥的療效，取長補短、互相輔助，吸取二者精華。這制度的實行是一門新的學科，而且已經有了相當的成就。

中西醫結合有什麼好處呢？首先是對中醫學者態度的改變，這點從大陸裏的情況可以見到。一是中西醫生地位平等，彼此沒有利害衝突。西醫不會因懂得現代醫學知識而看不起中醫，中醫也不會因自恃「祖傳秘方」之類而不講科學化的研究；因而彼此可以交換知識總驗，增進醫學的進步。二是所謂「家傳秘方」、「偏方」等民間流傳的醫藥，可以普遍地被拿出來研究，並在臨床學上以科學化的實驗方法應用，這對中醫學的有系統發展及其趨於科學化有極大的幫助。三是激起對中醫學的科學化研究。第四點是經濟問題，這在中國農村上尤其重要：利用中草藥治療可以節省不少金錢。最後一點，亦是在醫學上最重要的，現在有不少證據顯示，很多疾病的治療，應用中西醫學結合的方法，效果往往比單純用中醫或西醫學治療更有功效。

舉例說，以治療骨折而言，過去西醫認為骨折上了石膏後就要完全休息，絕對固定。這方法只看到骨折的局部，忽視了身體的其他方面，亦忽視了傷肢活動對骨折癒合有利的一面，及整個肢體在固定後的功能影響。新的中西醫結合療法採取了中醫「辨證施治」的理論、西醫學固定復位、及中醫小夾板固定的長處，維持著傷肢「動」「靜」之間的平衡，結果是骨折的治療效果進步了不少。

中西醫結合的歷史不長，所以目前還處於初級階段，許多新的，有規律性的東西還未有完全弄明白，臨床療效還待進一步提高。特別是理論方面的結合，現在還在剛開始的階段，因為中西醫結合是一門新的學問，要使中西醫理論達到融會貫通，從臨床實踐中不斷總結經驗是必須的，而且中醫學的科學化研究更須相輔而行。

中西醫結合絕不是中西藥並用這麼簡單，最重要的是如何運用現代藥學知識，結合中醫的四診八綱「辨證施治」方法，擬定中西醫結合的綜合診斷及治療措施。基本的原則，有人認為是，局部與整體相結合，個體與外界因素相結合，一般規律與特殊病情變化相結合，現代醫學知識與中醫理論相結合；中西醫診斷相結合；中西醫療法相結合等等。總括來說，是要使兩種醫療體系相融會貫通，互相取長補短，相輔相承，達到有效的真正結合。

中西醫結合的形式大致可歸納為兩種。一是某些病由中西醫雙重診斷，而按中醫方法治療。二是一些病用中西醫方法進行診斷和治療。

舉例說，如以第一種形式治療的病有胃十二指腸潰瘍。用西醫方法檢查（包括X光檢查），明白了病因後，按中醫方法治療。這病在中醫學中屬「胃脘痛」範圍，治療時根據中醫臨床症候，分為肝胃不和，脾胃虛寒兩大類，診斷病況屬於那種後，便依中醫方法開方醫治。

至於屬第二種形式治療的，舉例有急性闌尾炎，中醫稱「腸貓」。過去西醫的治療方法是立刻施手術，現在發覺在很多病例中手術並非是必須的。治療分為手術療法及中西醫結合非手術療法兩種，按病例及為況而選擇療法。手術療法即西醫的一貫療法，使用在某些中西醫結合法仍未完全弄清楚の病例中。至於非手術療法，則主要分為中草藥治療及針刺治療，按病例分別或共同使用。中草藥治療又分內服藥、外敷藥及中草藥穴位封閉注射療法等方式。中西醫結合非手術治療方法證明雖並非全部使人滿意，但在幾種病例中已取得了優良的效果。

總括來說，中西醫結合是中醫學現代發展的最佳途徑。在很多方面看來，它是值得處於中西文化間的中國醫學界所盡力研究推廣，亦值得外國醫學界的留意及加入，因為正如不少人所同意的，中醫學是一個未經開啓的寶庫，要儘量善用它，及使中醫學和現代醫學共同連結起來，需要長久的時間和巨大的精力，很多很多事情仍需要做，但現在至少已有了一個開端。希望正如很多人所料一樣，中醫學將來能以中西醫結合的形式，在現代醫學上擔當一個重要的角色。

註：

（註一）見圖甲

中國的基本思想中之「兩極相生論」即「二元論」。二元就是「陰陽」，古代的「太極圖」是陰陽的最原始象徵。在圖中，陽在頂，陰在底；向左陽盛，向右陰多。從生理學來看，橫軸綫位置的垂直轉移甚富啓發，當陽朝上發展時的陰就朝下發展成反比例的互相消長，直至那橫軸綫由正割綫（Secant）成一切綫（Tangent）

時，陽便到了極點，而陰則剛開始出現，反之亦如是。

圖 甲

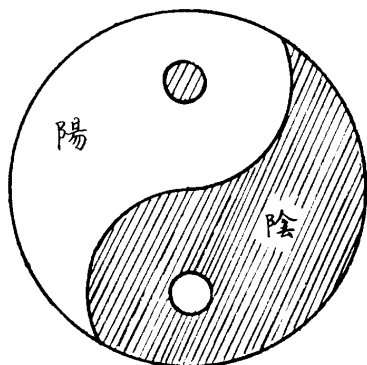
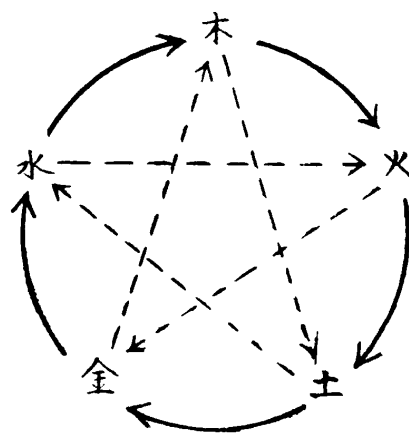


圖 乙



(註二) 見圖乙

相生即互相促進：水生木，木生火，火生土，土生金，金生水。

相剋即互相抑制：木剋土，土剋水，水剋火，火剋金，金剋木。

(註三) 各國學者都曾試圖從不同的角度去研究，解釋經絡。較著名的有電氣說，機械刺激學說，變質說，巴甫洛夫學說等。前三者都沒有肯定的證據，且有矛盾。巴氏學說用神經反射來解釋針灸，最為流行，但却不能解釋針灸治療神經疾患的現象，最近有人成功地證實，在經絡部分的皮膚，電阻較他處為低。

(註四) 朝鮮平壤大學的金鳳漢博士又宣稱在人體解剖時，在經絡下面，發現有種特殊組織，有一定的形態，由一些小管組成，小體被稱為「鳳漢小體」，小管為「鳳漢小管」。

據稱鳳漢小體內被發現有大量的血管與神經。表層與深層的鳳漢小體之形態及微細組織也畧有不同。鳳漢管也分二種，位於血管外的是外鳳漢管，位於血管內的是內鳳漢管，但結構相同，管內都有一些不明物體。放射性同位原素的注射顯示出鳳漢小體與另一鳳漢小體由鳳漢管相連，而注射之微粒則沿一定的方向循環，而循環的路綫却與血管，淋巴管及神經有別。金世郁又發現鳳漢小體被針扎到時會慢慢的作圓椎形運動，微微地顫動和有時作垂直於皮膚表面的活動，稱為「金世郁現象」。鳳漢小體對各種生物電反應也有特點，為他處所無，並且有自己的主要產生反應頻率。通電後，其刺激作用即在有關小體內逐漸擴大，直到該小體到了一定的興奮程度時，其效應就會傳至同一管的另一小體。又在生化的分析中發現了鳳漢管內有大量核酸。假若那些小體真是經絡系統，那麼針灸治病的原理於不久將可發掘出來。可惜鳳漢小體的存在迄今尚未獲得其他方面的證實。

(註五) 中醫學對疾病的診察和認識過程，叫做辨證。證是指證候，是由一系列症狀所組成的。根據病人所表現的各種症狀，通過分析的方法，辨認它是什麼證候，進而認識疾病發生的部位和性質，然後下藥，便能使疾病治愈。辨證的方法主要有下列幾個方面：一、臟腑辨證，根據臟腑有病時所表現的一些症狀，進而分析，歸納的一種方法。五臟六腑分別掌管人體精神方面的活動和一些維持生命最主要的物質，在生理活動或病理變化上，都是互相影響與互相聯系的。二、病因辨證：病因，就是引起疾病發生的原因。病因辨證，就是根據不同病因來分析，歸納證候的一種方法。中醫學認為邪氣（外因）雖能使人生病，但疾病的發生，決定的因素不是邪氣，而是由於人體的正氣（內因）是否有損。所以機能抵抗力強是防禦各種疾病發生的主要因素。三、八綱辨證：通過四診把診察到的錯綜複雜的臨床表現聯繫起來，加以具體分析，然後歸納為八個方面的證候。八綱就是表、里、寒、熱、虛、實、陽、陰，是用以辨別和概括疾病的性質，病變部位，機體抗病能力的強弱和病勢的盛衰。四、衛、氣、營、血辨證：衛、氣、營、血原是人體正常結構功能的主要部分。但在患溫熱病後，衛、氣、營、血都會先後發生相應的病理改變，而且有一定的規律，於是人們就借用衛氣營血來概括溫熱病四個不同階段的證候類型，借以說明溫熱病發展過程中病位的深淺，病情的輕重，病勢的進退，為溫熱病的治療提供依據。五、六經辨證：六經包括太陽經，陽明經，少陽經，太陰經，少陰經和厥陰經，原是經絡的名稱。以後借用它來概括傷寒病發展過程中六個階段的變化，成為傷寒病辨證論治的綱領。

(註六) 真武湯為附子、茯苓、白朮、生姜、白芍；可加細辛、人參、川椒。



Brain Drain

Going Away
Doctors
Hong Kong

Doctors

efflux!

BRAIN DRAIN OF DOCTORS

The efflux of local graduated professionals to other places in the world from Hong Kong seems to be a rather continuous process that has almost been taken for granted as a natural phenomenon. Doctors are perhaps the most talked about figures in this respect. But how much afterthoughts we have paid towards this matter in regard to the significance this means to the intact medical field here?

Gathering information from many medical personnels and from our own findings, it can be said that many Hong Kong doctors have gone to places like Canada, Australia, New Zealand and the USA while a minor proportion have gone to countries in Asia. Thus as an example in New Zealand: The New Zealand Department of Health estimated that originally 25% doctors practising in New Zealand originally qualified overseas. Of these roughly 5% are from Asian countries. They claimed that there are 138 Hong Kong graduates in which 100 of them have taken out New Zealand Medical registration but are now living in Hong Kong. In an interview with a doctor graduated in the seventies it is known that about 40% of his former class in the University have gone for good! This estimation is well echoed by the medical personnels we have interviewed. The exact number of doctors leaving the colony each year is hard to gauge due to the fact that the number of doctors registered here do not correspond to the actual number of them practising in the Colony. Thus from the Medical Council of Hong Kong it is discovered that the number of doctors on resident register on 31st, June, 1975 is 2701 while the number of doctors on non-register on the same date is 115, which is not reliable as an indication to the actual number of doctors practising overseas, since a large number of them may not have taken out resident or non-

resident registry in Hong Kong but are now actually gone: Therefore, from the data provided by the Medical Council of Hong Kong, we have the number of doctors transferred from resident to non-resident over the years 1972, 1973 and 1974 to be six teen each year, but how many of them have not taken out the non-resident registry but have left Hong Kong?

Of course, it would be too presumptuous to say that this Brain Drain of local doctors is a serious crisis because it indeed have happened all the time, but the number of medical graduates of Hong Kong leaving the Colony for other places is so significant that this has become a matter of much speculation and perception.

Since the phenomenon of Brain Drain of Doctors is so vividly present before us, it is interesting together viewpoints and ideas from doctors themselves. Thus in an interview with Dr. L. K. Ding, he ascribed this as a 'sure and crucial' problem where doctors from Hong Kong drain mostly to USA or Australia. Is it for the sake of 'better future of the family', 'Pull of the Dollar' or for that matter the delicate political situation here? It is almost a fact that doctors in Hong Kong are quite free, as Dr. Ding puts it, because they can get medical registry abroad while still practising in Hong Kong. This unusual circumstance is well illustrated by the example of the mentioned situation in New Zealand. Incidentally, Dr. Ding questioned the basic attitude of young people doing medicine. It is an undeniable fact that materialistic terms occupy a significant position, in which undue emphasis is paid to the 'prestige of the profession'. This is agreed upon in another interview with a houseofficer Dr. Chan in which he stressed that professionals in Hong Kong, especially, are making

too high an esteem of themselves where they would consider automatically that the highest standards of living and social prestige are only too appropriate for them. He continues to put it that most of them choose the road of immigration for the benefit of their career and the 'future of their children', without regard to the turmoil this tide of unsettling immigration has created in their fields of service, particularly in the already strigent situation among the medical profession. It should, however, be well appreciated that many went abroad for the sake of pursuit of higher academic education in the field of Medicine. There is a lack of training facilities or 'refresher courses' as felt by many doctors. This may well be a crucial reason behind the scene.

Dr. KOO (M.B., B.S., PH.D.), Lecturer in the Physiology Department, HKU, admits that 'brain Drain' is quite a serious problem in the medical profession here. On being asked the research prospect in Hong Kong, Dr. KOO explained, "research can primarily be divided into two aspects, basic medical and clinical. In the latter, it is not as enthusiastic as overseas because of the very heavy patient load in the hospitals, so that very little time can be devoted to research work. Moreover, long term investigation of interested patients is not possible due to insufficient bed spaces." Of course, financial aspects and an overall 'research atmosphere' must also be considered. At present, vacant posts for research are few as compared to the number of graduates every year, and one has to wait for quite a time for desired posts. Usually, after working for two years in either the university or government Units following internship, one can go to England for another two years after which one can take the fellowship examination. But such chances are rare and this straight-forward route rarely exists. Government grants can only cater for one or two candidates every year. Dr. KOO stresses on one point," M.B., B.S. is in fact a beginning in the practice of medicine,

but here it seems to be an end of itself. In other countries, eg. USA, there is a more or less definite programme for medical graduates, consisting of well-planned rotation of fields, so that after 3-4 years, one can have a reasonable amount of knowledge as well as experience in nearly all fields. In a word, one is a genuine GP then."

Dr. Chan, a House Officer in the Queen Elizabeth Hospital, expressed that the post-graduate training facilities available in the Colony is "grossly inadequate to cope when such a vastly expanding science:" He and his colleagues, according to him, feel that it is veray important to upkeep with advances in Medicine, rather than to be contended with the already acquired knowledge. Undeniably, foreign countries like Canada & USA offer a great tempt for some academically zealous graduates because of the advanced facilities available.

Interviews with other GPs show that they share a more or less similar view. Most of them relate the problem to the scanty chances and onerous routes for further studies and higher degrees for the more ambitious graduates. "Some of them", according to one GP being interviewed, "are so fed up with the whole system here that they go to other places where they can achieve their ideals". Some may have lost faith in the future of Hong Kong, and some imigrate for personal reasons, but this group of 'drainers' represents only a small percentage in the total figure.

Getting to the point of 'Service' especially service to the Community, one may start thinking that why so many medical graduates here are unwilling to serve the Community but prefer to practising abroad. According to the opinions of several general practitioners in Hong Kong, this has to trace back to the early stages of medical education, that is, the attitude of the medical students themselves. The concept of 'Community Service'

is heavily pointed out in that the type of service a medical student is prepared to render to the community is a point of paramount importance determining his future 'desire'. It is of course one-sided to overlook the heavy load of work doctors here have to face, but it is also relevant to say, that if a medical graduate is himself feeling unsatisfied here, he might probably be 'unsatisfied' elsewhere for various reasons. There is quite a general agreement among visted practitioners that the type of service a doctor is prepared and willing to offer matters very much in constituting whether he is 'satisfied' or 'unsatisfied' in the future. In other words, what a doctor *AIMS* at his job is of the most vital importance governing whether he is bound to be 'satisfied'.

It would be wrong or unjustified to say that all general practitioners here are not pursuing for medical advances and are too contented with their knowledge. It seems appropriate to say that they play a special role in doctor-patient relationship as expressed by a more intimate interaction. Thus in an interview with Dr. Poon, a practitioner in Hong Kong, he thinks that the post of GP is a challenging and rewarding one. He also feels that GPs in Hong Kong are more fortunate than those in large countries because of the concentration of population and easy availability of specialists. He attributed the matter of Brain Drain as a 'purely personal choice and should bear no special relationship to the medical system in Hong Kong'.

Varying though the opinions of those who have been interviewed to the causes of Brain Drain appear to be, certain points relating to the significance and possible solutions of the problem are only too obvious to escape attention. As the more brilliant and ambitious medical graduates leave for more advanced countries for further studies or in pursuit of better personal benefits, would such draining constitute a hazard to the upgrading of standard of medical practice

here? Is it justifiable that the basic obligation of serving the Chinese community may be sacrificed for the mere achievements of personal goals abroad? Here the taxpayers become involved, because during the course of medical education, some hundreds of thousands of dollars are spent on but one single student. Thus it is expected that after their education, the graduates will render their service to the taxpayers in return. Such a problem, however, has many social implications. If the society fails to attract them, they will eventually leave for good even if compulsory service after graduation is enforced. So to blame the doctors but sparing other professionals (where Brain Drain is also serious) will be all too unfair.

As to the solution, one method is to select a group of students that will genuinely dedicate their lifetime to serving the community. As Dr. Ding suggests, "we can screen the applicants at the time they make up their minds to study medicine to find out their actual motivations. Scholastic achievement need not be the sole factor, though it must be considered altogether. We can study their backgrounds more thoroughly, find out the kind of life they live, their ability of organisation, their zeal of serving the community etc. We must evaluate from different directions, from recommendations of their high school teachers, from their associates etc. and some psychological tests can be feasible." (This has been done in some places in U.S.A.) In a word, the philosophy of the University must change. We do not want a privy group from our graduates, we need a social-conscious, dedicated group from our youngsters." This is of course a very ideal side of the story.

Can we do something about the medical process itself? Recapulating on the issue, one of the major causes of brain drain is a lack of post-graduation courses for those interested. A system of rotation of medical graduates from training units in general

hospitals to peripheral clinics, supplemented by occasional lectures and seminars may help to accommodate more people for post-graduate training. We are indeed very much in need of a post-graduate medical school. With such an institution, a large number of brilliant and potential dedicators for our community that would otherwise be 'drained' to the benefits of overseas patients can be withheld from leaving. How about building another medical school? It is obvious that this is not an effective way to curb the brain drain for it is the output part that is bothering us. Increasing the input yet without controlling the output will only mean a large number of outgoing doctors, and it is not entirely worthwhile in spending this large sum of money.

Looking at the attitudes of foreign boards of medical practice, it is apparent that if one is qualified, there exists little difficulty or prejudice in practicing abroad. The Registrar of the Medical Council of Canada, in his reply to our letter, has the following to say: "...this Council takes no position favouring, or objecting to, the entry of immigrant physicians to Canada. Council has to adopt an impartial attitude, because

its roles are to examine candidates recommended to it by the provincial licensing authorities, and to register those who meet the requirements for entry to the Canadian Medical Register, regardless of their place of medical education." However, in New Zealand, the situation is a bit different, as the Director of Division of Clinical Services in New Zealand comments that "it is expected that the proportion of over-seas qualified doctors here will gradually decrease as the graduate output from our medical schools expands; over the next ten years the annual output will more than double from this year's figure of 169, to a total of 370 in 1985."

Admittedly the personal factor in determining whether to stay or not plays a central role in the phenomenon of draining of doctors, however, are there any finite parameters influencing this? Although it is impossible to set up specific reasons for this owing to the variabilities, it is meaningful to ponder over the myriad motivations and persuasions behind this current of Brain Drain. It is perhaps the time for reflections over this, especially for persons relating to the medical field.

MEDICAL AND HEALTH SERVICES IN THE OUTLYING AREAS OF HONG KONG

— A SURVEY ON TAI PO AND SAI KUNG ADMINISTRATIVE DISTRICT **

INTRODUCTION

The Hong Kong Government Financial Secretary's decision to cut down the budget for medical department programme earlier this year has once again drawn attention towards the problem of adequacy of Medical and Health services in Hong Kong. This project aims at presenting a picture of medical services offered to inhabitants of remote villages and outlying islands of the New Territories. Health services in the well-developed rural towns like Yuen Long and Shatin are well-known and are not mentioned here.

In this article, emphasis is put on the services in the Sai Kung Peninsular and the

**The opinions expressed in this article are those of the authors and do not represent those of the Medical Society, HKUSU, nor those of the Elixir Editorial Board.

Six days a week, the Chi Wan makes regular trips to seaside fishing villages around the Tolo Harbour and islands in the Mirs Bay. These include Wong Wan (往灣), Robinson Island (鴨州), Sai O (西澳) and others. The Chi Hong visits villages in Junk Bay (將軍澳), Po Toi O (布袋澳), Rocky Harbour (糧船灣), Kau Tau (滯頭) and Lantau Island.

On the average, each village is visited once every two days. About 60 patients are treated during each trip and in the larger villages, 30-40 patients may be treated in one

Tai Po Administrative District. As the geographical situations of these areas make them quite inaccessible by motorways, the floating clinic and the flying doctor services have become the major tools in maintaining good health in these areas.

Before proceeding further it is worthwhile to have an idea of what actually are the floating clinics and the flying doctors.

THE FLOATING CLINIC SERVICE

The floating clinic service is maintained by two launches the 'Chi Wan' (慈航) and the 'Chi Hong' (慈雲) each with a team of a doctor and a nurse. Each launch is equipped with an out-patient clinic and a dispensary. Minor operations can be performed in a separate compartment if necessary.

session. In the year 1974, a total of 20,000 patients were taken care by this service.

THE FLYING DOCTOR SERVICE

The flying doctor service is conducted weekly by a medical team comprising of a doctor, a nurse and a dentist. This service has been introduced by the Medical and Health Department since 1961 for the general improvement of the health standard in isolated villages in the New Territories. The Royal Hong Kong Auxiliary Air Force provides

transportation while doctors from Tai Po Jockey Club Clinic conduct the clinical sessions. This medical team makes regular visits to eight villages every weekend, using one of the Royal Hong Kong Auxiliary Air Force helicopters. Each village is visited once a fortnight. They include Cheung Sheung (嶂上), Pak Sha O (白沙澳), Tai Long (大浪), Sai Wan (西灣) and Lai Chi Wo (荔枝窩) in the Sai Kung District, Nim Wai (稔圍) in Castle Peak, and Wu Kau Tang (烏蛟騰) and Sam A Tsuen (三桠村) in the north-eastern part of the New Territories. The team is at present serving a population of 2,000 people.

Both the Flying Doctor and the Floating Clinic Services are free of charge and the patients are usually treated on the spot. All types of immunization are also offered to the villagers free.

In emergency cases, a helicopter service is available day and night for the transfer of patients to major hospitals where intensive care is available. Police launches are occasionally employed if the cases are less urgent.

THE SAI KUNG DISTRICT

The main service provided by the government is based at the Sai Kung Dispensary and Maternity Home. There are mainly two divisions: the Maternity Home and the Out-patient Department.

The maternity Home consists of seven beds and provides 24-hour service, while the OPD provides general out-patient clinic and family health services. The latter includes the clinical sessions on family planning, antenatal, post-natal and infant welfare clinics and is held once a week. The Ophthalmology and Tuberculosis Unit run the out-patient session also once a week.

Medical officers of Sai Kung Dispensary visit the remote villages twice a week. These villages include Tseng Lan Shu (井欄樹), Hang Hau (坑口), Mang Kung Uk (孟公屋) and Sheung Yeung (上洋).

Two villages in the Sai Kung District are served by the Flying doctors. Tai Long (大浪) and Sai Wan (西灣) are visited fortnightly. Remote villages around Junk Bay, Rocky Harbour and Kau Sai (滯西) are visited by the floating clinic 'Chi Hong'.

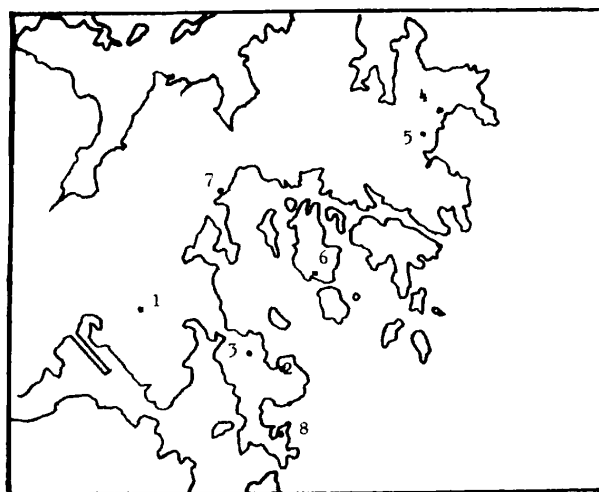


Fig. 1: Sai Kung Administration District.

TAI PO DISTRICT

Out-patient services are available at Tai Po Jockey Club Clinic, Shek Wu Hui Jockey Club Clinic, Ho Tung Dispensary and Sha Tau Kok Clinic. Specialist clinic sessions such as tuberculosis, dental, social hygiene and eyes are conducted by doctors of respective units at the major clinics.

There are three maternity homes in Tai Po district, viz. Tai Po Maternity Home, Shek Wu Hui Maternity Home and Ho Tung Maternity Home. In addition, family planning, antenatal, postnatal and infant welfare clinic sessions are held at the major outpatient departments.

Medical officers attached to the Tai Po Jockey Club Clinic visit the Pine Hill Babies Home and the St. Christopher's Home regularly. Another travelling Dispensary consisting of medical officers of Shik Wu Hui Jockey Club Clinic visits places like Ta Kwu Ling (打鼓嶺), Ma Mei Har (馬尾下), Lin Ma Hang (蓮麻坑) and San Uk Ling (新屋嶺).

Fourteen remote villages in Tai Po District are visited by the 'Chi Wan' floating clinic. These include Sham Chung (深涌), Tap Mun (塔門), Lai Chi Wo (荔枝窩) and others.** The medical officers running this service is attached to the Tai Po Jockey Club Clinic. On the other hand, less accessible villages like Cheung Sheung (嶂上), Lai Chi Wo (荔枝窩), Pat Sha O (白沙澳), Nim Wan (稔灣), Wu Kau Tang (烏蛟騰) and Sam A Tsuen (三桠村) are served by the flying doctors from the Tai Po Jockey Club Clinic.

The Government runs a general hospital of 54 beds in Fanling — the Fanling Hospital. Three doctors are attached to the hospital. The hospital admits orthopaedic and other

**These include Sham Chung, Lai Chi Wo, Tap Mun, Ap Chau (鴨州), Kat O (吉澳), Wong Wan (往灣), Kau Lau Wan (較流灣), Lai Chi Chong (荔枝莊), Chek Keng (赤徑), Yim Tin Tsai (鹽田仔), Wu Kwai Sha (烏溪沙), Sai Lau Kong and Shap Sze Heung.

convalescent patients from Queen Elizabeth Hospital in addition to sick local residents. Full time general outpatient clinics are also held.

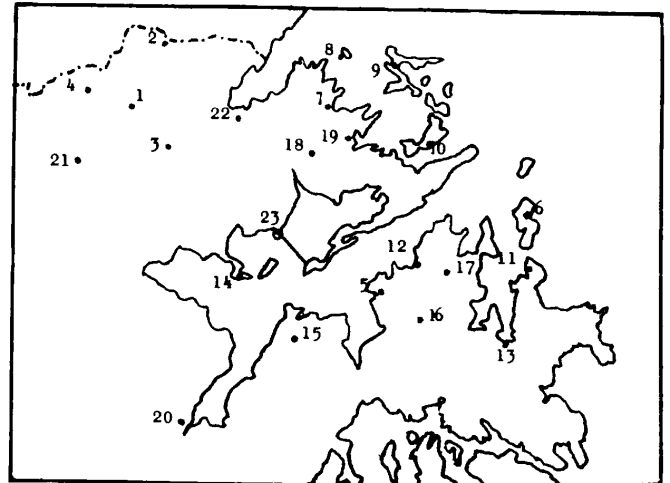


Fig. 2: Medical Facilities in Tai Po District.

The Tai Po Jockey Club Clinics and Shek Wu Hui Jockey Club Clinic also provide 24-hour casualty services.



Fig. 3: Tai Po Administration District.

In the last year or two Sha Tin has been separated from Tai Po District as a result of Sha Tin New Town Development. The existing facilities consist of Sha Tin Clinic and Maternity Home. Future developments include Sha Tin General Clinic, Sha Tin Polyclinic and Sha Tin Hospital, which is intended to be the teaching hospital for the second medical school in Hong Kong.

COMMENTS

Having had a general idea of the health services in the outlying areas of Hong Kong, we would endeavour to make some comments on these services. To provide medical services to villages scattered over the whole eastern part of the New Territories and various islands is by no means an easy task. In this respect we must admit that the Medical and Health Department has already done a satisfactory job. But this does not mean that there is no room for improvement.

We would divide our discussion into two parts: first on the floating clinic and flying doctor services and then on the services provided by clinics and hospitals in the major rural towns.

Regarding the floating clinic service, the impression that we gathered from a trip on the launch is that it has done quite a good job. The villagers are quite satisfied with the once-every-two-day visit. The reason being that there are really not many emergency cases that require immediate medical care. The villagers are generally in good health and the most frequent complaints are insect-bites and dermatitis that result from the poor sanitary conditions. Very often the clinic arrives at a village with no patient to attend to.

Folk medicine is quite popular among the villagers and there are even 'witch-doctors' in some of the villages. The villagers however are in no way reluctant to see

'western doctors' especially when immunizations and other preventive measures are necessary.

In cases when they want to seek immediate medical care the villagers often find their way to nearby rural towns where a clinic or a GP is available. When emergency arises the villagers will call for a helicopter or a police launch. In some villages where there are non-Commonwealth doctors (trained in Mainland China) practising as acupuncturists they are always ready to offer a helping hand in these cases.

The flying doctor service regrettably is much less effective. One visit every fortnight brings virtually no improvement to the standard of health service. As a doctor commented, it is only a 'symbolic service'.

Obviously the setting up of a clinic in these villages will solve all problems. But this would be an unjustifiable attempt from a practical point of view. Most of these villages have only a few hundred inhabitants and the population rarely exceeds a thousand. On top of this there is a tendency for the population to continue to fall. A doctor involved in service to these places estimated that there would only be 20 cases per thousand inhabitants per day most of which would be minor complaints. It would therefore be a wastage of manpower to run a clinic in such places and he would rather prefer the clinics and polyclinics in the major towns be more adequately staffed. (This would be discussed below) Furthermore, lack of electricity and fresh water supply in some areas would greatly hinder the development of the clinic. Staffing the clinic would create another problem as no doctor would like to work in such locations for obvious reasons.

Thus there are still good reasons to maintain the floating clinics and the flying doctor services especially for the former. The villagers, who are the direct benefactors, seem to welcome these and if more boats or

helicopters are available and the services run more frequently they would turn out to be very successful and effective means of providing medical service to remote areas of the New Territories.

Coming to the question of the clinics and hospitals in the major rural towns, the main problem is the shortage of staff. In the report of a visit to Cheung Chau by the Health Committee, it was pointed out that although three doctors are stationed in the St. John's hospital, usually only one doctor is on duty in the OPD and he has to handle some 150 patients in one whole-day session. The problem is even more serious in the Tai Po Jockey Club Clinic where over a hundred patients are treated in one morning session.** Excessive work-load and long working hours of the staff often cause, though not unavoidably, conflicts with the patients. If the floating clinic service is not extended to serve more areas, patients seeking for more intensive care will continue to pour into these clinics from the nearby villages. Together with the increase in population of the town itself, the few-staffed OPD will soon come to a point of exhaustion. Increasing the number of staff will bring immediate improvement to the services.

Thus we come to realize that though the ideal of providing every village with 24-hour medical service is a target quite impossible to achieve, expansion of the floating clinic and flying doctor services should be a major part of the medical development programme. The aim is to provide a service in which each day for a certain period of time a doctor is present in the village for consultation. The other field of improvement should be the expansion and modernization of existing government clinics and establishment of more out-patient clinics in other rural towns and larger villages. Finally, a well-equipped

general hospital in every major district should be the ultimate goal in any development programme.

**During the first nine months of the year 1975, there were a total of 28,901 O.P.D. attendances at St. John's Hospital. As there were 202 working days during the same period, the average daily attendance was 143.1.

During the first nine months of the year 1975, there were a total of 44,489 O.P.D. attendances at Tai Po Jockey Club clinic. The average daily attendance was calculated to be 220.2. There is usually one doctor working full-time and another working half-day to attend these patients.

Though these two clinics are busy as compared with the urban counterparts, they are not the busiest in the New Territories.

ACKNOWLEDGEMENTS

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Fig. 1: *Sai Kung Administrative District*

Key:

1. Tseng Lan Shu
2. Hang Hau
3. Mang Kung Uk
4. Tai Long
5. Sai Wan
6. Kau Sai
7. Sai Kung
8. Po Toi O

Fig. 2: *Medical Facilities in Tai Po District*

1. Shatin Clinic and Maternity Home, Shatin.
2. Tai Po Jockey Club Clinic and Maternity Home, Tai Po.
3. Shek Wu Hui Jockey Club Clinic and Maternity Home, Sheung Shui.
4. Ho Tung Dispensary and Maternity Home, Sheung Shui.
5. Sha Tau Kok Clinic.
6. Fanling Hospital.

4. San Uk Ling
5. Sham Chung
6. Tap Mun
7. Lai Chi Wo
8. Ap Chau (Robinson Island)
9. Kat O
10. Wong Wan
11. Kau Lau Wan
12. Lai Chi Chong
13. Chek Keng
14. Yim Tin Tsai
15. Wu Kwai Sha
16. Cheung Sheung
17. Pat Sha O
18. Wu Kau Tang
19. Sam A Tsuen
20. Shatin
21. Shek Wu Hui
22. Luk Keng
23. Tai Mei Tuk

Fig. 3: *Tai Po Administrative District.*

Key:

1. Ta Kwu Ling
2. Lin Ma Hang
3. Ma Mei Har

MEMORABLE EXPERIENCES IN SCIENTIFIC CONFERENCES

By Miss M. J. CHEN

from the Dept. of Physiology, HKU.

Having been away from home for more than one and half years, I decided to return home, not during the long summer vacation but during the month of October, when the so called first academic term of the University of Hong Kong is in full swing. The reason for going home in October was that from 20th to 25th October the 26th International Congress of Physiological Sciences was to be held in New Delhi, and subsequently another important conference was to be held from 28th October to 1st November in Bangkok.

Early in October I set out alone for my long awaited trip home and to attend two meetings related to my field of research. The trip home was a very happy event as the time of my return coincided with my father's birthday. One can imagine the ineffable joy and felicitous reunion! After spending almost two weeks at home, I travelled to New Delhi on 18th night by Indian Airlines. As usual, the departure time of Indian Airlines flight was not punctual. As soon as I fastened my safety belt I came to understand that the flight was delayed not because of the weather which was fine and pleasant when I went from the city to the Airport. Instead the plane was actually waiting for the Chief Minister of West Bengal, Mr. Siddhartha Sankar Ray and his gracious wife who is also an active member of Parliament. The honoured couple happened to sit close to where I was sitting and I took the opportunity of going forward to them and asked them to sign in my autograph. After two hour flight the plane landed at New Delhi Airport and then I went to All Indian Institute of Medical Sciences ladies' hostel where I put up during my stay in New Delhi.

The next day I went to Ashoka Hotel — the venue of the International Congress of Physiological Sciences for the week, for registration and to confirm my oral presentation of a scientific paper on behalf of my supervisor, who handed the task of presenting the paper at the eleventh hour. When all the red tape was completed with the officials of the International Congress of Physiological Sciences, I tried to locate my two colleagues Dr. J. C. C. Wang & Miss Y. M. Cheung who were attending the conference. After meeting them, prior to the inauguration of the conference, we went sight seeing to Old Delhi and visited the Red Fort which is considered to be one of the magnificent monuments. The Red Fort was established in 1647 and is believed to convey the strength and delicacy of Mughal architectural taste. The Red Fort, so called because of its walls are of red sandstone, was built on a strategically low-lying ground. One of its merits was that it could not be seen by a hostile army unless the attack was mounted across the river Yamuna. However, in modern days the Red Fort is being used as the most suitable place where the Prime Minister of India, Mrs. Indira Gandhi addresses to the public on Independence Day and other special occasions.

On 20th October the International Congress of Physiological Sciences commenced sharp at 3 p.m. in the spacious Convention Hall of Ashoka Hotel where about 2,000 eminent doctors and scientists from all over the world were assembled together with fellow academics from the host country. Cameramen and pressmen were busy taking photographs of the delegates and noting down the events of the conference.

First the President of ICPS, Prof. B. K. Anand gave a hearty welcome speech to the big audience and was followed by the President of International Union of Pathological Sciences, Prof. Y. Zotterman (Sweden).

The Union Health Minister of India, Dr. Karan Singh delivered an eloquent speech describing the ubiquitous poverty but spiritual and cultural richness of India. He also stressed the importance of research in basic sciences, because the modes of life and environment are constantly changing with the times and the disease pattern obviously does not remain unaltered. Thus, the ever changing nature of the world poses a continuous challenge to humanity which can be met only effectively by the problem-oriented research. Overwhelmed by the remarkable speech, the President of India, Mr. Fakhruddin Ali Ahmed officially inaugurated the meeting and spoke of the medical problems faced by people in spite of intensive research.

After a break of 15 minutes, the inaugural speeches were followed by the first scientific lecture given by the Nobel Prize winner, Dr. Harigobind Khorana on the latest development in the laboratory synthesis of genes. The distinguished scientist narrated his study which succeeded in chemically synthesizing the DNA molecules comprising of 100-200 polynucleotides — the genetic material — with the help of RNA which corresponds to those DNA molecules. The synthesis of the biological material, which determines hereditary characters, is a great step forward in the understanding of biological sciences and other related fields. His work may lead to a new investigation with the possibilities of eugenic and ethical importance like the production of test tube babies and the cure of cancer and diabetes and other mysterious medical problems.

After hearing the superb lecture on the new advents in the biochemical genesis of the hereditary unit in a living cell, the delegates were ushered immediately to Rashtrapati Bhavan — the residence of the President of India, where a simple reception was held. It was, indeed, a wonderful and hilarious time every one!

The next day the fortunate and enthusiastic delegates could see several photographs being displayed in the registration centre of the Ashoka Hotel. They enjoyed looking at the photographs in the inaugural ceremony on the first day of the conference and the delegates shaking hand with the President of India at the reception.

On 21st October, the different symposia, invited lectures, seminars and volunteer papers were presented in the different conference rooms of Ashoka Hotel. To my surprise these rooms were well equipped with the facilities such as microphones, slides, projectors, and screens and drinking water for the speakers and audiences. The highlights of the conference, to mention a few, were "Recent work on visual mechanism; the role of physiology in human affairs; Contemporary developments of Pavlov's theory about the mechanisms of conditioned reflexes; World population year — population growth challenge to modern science; the physiology of emotions; Latest development in nutrition; Mechanism of sleep, and many intriguing lectures.

One could imagine the enlightenment one could receive in the various seminars, especially the lecture delivered on the recent work on visual mechanism by Sir Alan Hodgkin, who shared the coveted Nobel Prize for Physiology and Medicine with Prof. Andrew Huxley and Sir John Eccles in 1963. Other notables speakers were Drs. C. H. Sawyer (U.S.A.); K. V. Sudakov (U.S.S.R.); Eric Neil (U.K.); F. R. Calaresu (Canada);

B. Folkow (Sweden) and an endless list of renowned research workers in various fields of Medical Sciences. Apart from attending the important and stimulating lectures conducted everyday from 9 a.m. to 5.30 p.m., I took a day off on Tuesday 22nd October to visit the famous Taj Mahal in Agra which is situated about 197 Km from New Delhi. I travelled with many colleagues in a tourist bus from New Delhi at eight o'clock in the morning and reached Agra by noon.

After lunch, we were at last able to appreciate in reality the magnificence and beauty of Taj Mahal, and its surrounding green garden. Taking photographs of the splendid beauty of the ancient immaculate white, marble monument in the midst of the modern world is irresistible and crowds could be seen taking photographs at different angles and with various poses against the fabulous background. Every tourist visiting the Taj Mahal was rhapsodizing the grandeur of one of the seven wonders of the world and their desire to see it at last has come true. Besides seeing the Taj Mahal we also visited Sikandra and Agra Fort which reflect the history of the Moghul dynasty in the 12th century. It was truly an enjoyable excursion, seeing those historical places of interest in Agra on a fine autumn afternoon.

The President and Executive Committee of the 26th International Congress of Physiological Sciences cordially invited the delegates to a cultural show staged by Y. Krishnamoorthy and U. Sharma. The two talented young artists presented a recital of Indian classical dances — Bharatanatyam Kuchipudi and Kathak, an outstanding performance to the huge audience in the Convention Hall of Ashoka Hotel on 23rd October at 8 p.m.

In addition to the cultural show, the President and Executive Committee of ICPS also hosted a Congress reception on Thursday 24th October from 7.30 p.m. at the Ashoka Hotel open air swimming pool which is connected to a lovely garden.

Amidst the air of gaiety and festivity which coincides with the 10 day festival of Dussera — one of the chief festivals of India symbolising the triumph of good over evil, the delegates were served different varieties of curry, tandoori fish, chicken, mutton, Indian sweetmeats and entertained by belly group dancers. There were lots and lots of food to eat and liquors to drink that one could hardly believe that there was food shortage actually being reported in the daily local newspapers in different parts of India.

Furthermore, the delegates had the opportunity to be photographed along with a gigantic, colourfully adorned elephant which symbolises the royalty of the occasion. Dr. Anand and Dr. Zotterman were so happy that they pranced together with the group dancer in a circular spot surrounded by the delegates and other invited guests.

On 25th morning I presented the paper on behalf of my supervisor at the scheduled time and showed some slides. After that some of the delegates congratulated me and asked for the reprints of the paper which unfortunately I did not have to present them at that moment. So they gave me their addresses and I hope to send the reprints to them later on. That afternoon I left for New Delhi International Airport to proceed with the travelling formalities. The flight from New Delhi to Bangkok via Dacca for 45 minutes refuelling, was a pleasant flight as I had the company of an old American who I come to learn is a novel writer.

At Bangkok on 28th October the International Symposium under the auspices of Mahidol University and the Rockefeller Foundation, Bangkok was formally inaugurated by the Health Minister of Thailand who at the last minute delivered the inaugural speech on behalf of the Prime Minister of Thailand. While the Rector of Mahidol University Dr. Kasarn Chartikavanij and other important speakers addressed to the various delegates from South East Asian countries, namely, Khmer Republic, Vietnam, Laos, Malaysia, Singapore, Hong Kong, Taiwan, and Indonesia, the T.V. men and reporters were actively engaged in recording and taking photographs of the events. Prof. A. Yau, Dr. S. T. Chan, Dr. M. M. P. Yang and myself represented the HKU. Later, I come to learn that there was a great deal of publicity on the TV and in the press regarding the conference. The purpose of the conference was to make known the recent advances from the point view of education and research activities in four important topics such as Population and Family Planning, Biological reproduction, Malnutrition and Infectious Diseases. The different foreign scientists including some from U.S.A. presented papers on their new findings in reproductive mechanisms on experimental animals, vitamin E and anemia.

Some of the sessions were very interesting and lively as there were heated arguments amongst the participants when the facts were controversial to their previous knowledge. Apart from the instructive discussions, the delegates were taken round the research and teaching laboratories in Mahidol University which were well equipped with plenty of sophisticated and most modern instrumentss, Despite its recent establishment the different laboratories were provided with all sorts of facilities and amenities.

The Organising Committee were very hospitable to invite the delegates to a cocktail dinner at the posh Sports Club on the first night of the conference. Another party was given on a festival night at the Park Hotel by the Chairman of the Biological reproduction session.

Besides attending the different oral presentations during the five day symposium, I was invited by an American scientist who got the transportation from the Rockefeller Foundation officials, to visit some of the famous temples in Bangkok such as the Grand Palace, Wat Po and Rose Garden. The architectural style of the temples in Bangkok is entirely different from those monuments that I saw in New Delhi. It's really difficult to judge the majesty of the temples and monuments. Each has its own uniqueness and beauty.

The experiences in participating in the two important scientific meetings and visiting the places of interest in New Delhi and Bangkok will be an memorable one. The personal contacts with some of the prestigious scientists and authors of some biological textbooks, has led me to a deeper understanding and insight in Basic Sciences. I think no knowledge could have been better gained than the first hand communications with the experts in their fields.

真想不到夢也會是真的。

從老師手上接過大學入學試的成績單，有人湊過頭來看看，有人說：「嗨，恭喜，入醫學院沒問題了！」入醫學院沒問題了？我呆瞪着那紙片，入醫學院沒問題了？這句話在我的腦際迴響……醫學院，醫學院，我終於可以入醫學院了……夾雜着這剎那間的喜悅和興奮，竟也還有着一份凝重的酸澀味道，這是夢想，但夢會是真的嗎？

媽從中二開始就會不斷的要我停學，爲了我是一個女孩子，爲了可以節省我的學費和書簿費，爲了使我可以出外賺錢，不爲養家，只爲好增加她自己的存款！由命令，而軟語，而埋怨，到毒罵。由解釋，到辯論，到爭吵，到沉默！我始終沒有停學，我沒有讓步，我怎能爲了增加她的積蓄，使她多買幾隻金戒指或者在麻雀枱上輸得光彩一點而丟了我的學業，我的前途和我的夢想？

媽媽的壓力越大，我的態度越強，我越是堅持，媽媽就更是氣惱了，我們之間的關係也就更壞了。漫罵和埋怨，冷語和峻言，也都默默的承受了，鞭笞，也捱過了。雖一直不理這些事，他是另外的一種人，他的世界裏沒有兒女，只有狗、馬、麻雀、烟、酒和大櫛！一肚子的委曲，只好在晚上伏枕或者躲在校園一角默默的流淚，翹首望天，蒼穹無話，有時真不禁要痛問蒼穹，究是何以偏私如此？但是又會有誰答我呢？上天不公平也好，我是決不能倒下的！

種種的痛苦，雖然也都默默的承受着，但心中總無法擺脫那煩人悻人的陰影，偶而從書本中抬起頭來，瞥見媽嚴厲的雙目，使我又不禁一陣的悵惘，下一分鐘的她會怎樣？下一分鐘的我會怎樣？我還可以再堅持下去嗎？我的以後會是一條怎樣的路，俯首望着書裏的字，字跡在淚眼中迷濛，惶惑和憂疑迅速覆蓋了我，我的前路只是一片蒼茫無着，根本就不辨南北東西！

看見別人一家和睦，父嚴母慈的，心中不禁昇起了無限的羨慕和神傷

。要走到野外荒徑之中，風兮颯颯，雲兮渺渺，這一顆苦痛的心，邁着踉蹌脚步，咬着唇，含着淚向風和樹默訴我悽楚的心情。人人有家，人人有父母，爲甚麼我的家不似家，我的父母不似父母？是誰說過：「生我之前誰是我，生我之後我是誰？」誰是我？我是誰？父母和女兒，難道只是一個名份？人人都歌頌母愛的偉大，但爲甚麼我會有一個沒有母愛的媽媽？上天對我刻薄嗎？當然還有不少人比我更慘！但造物物的爲甚麼要製造這不平等？難道就要以我們的痛苦去比對別人的快樂？

媽終於中斷了對我的金錢供應，當她板着冷峻的臉孔向我說：「要讀書，自己讀去，家中沒閒錢供人讀那些沒出息的書！」我的心在癢癢，在絞痛，在撕裂，媽媽，你是我的媽媽，我是你的女兒。媽，究是何苦對我煎迫如此？

我的夢

隱文

學費、車費、午飯錢，一下子都成了問題。這是一個客觀現實的社會，沒金錢，午飯也沒有了，還說得理想志向和傲骨嗎？咬着牙，我開始去找工作，我補習，白開水加兩個乾麵包的午餐也不知凡幾了。

預科的功課日重，工作的忙碌，功課的緊張，加上惶惑和擔憂，竟是如斯的沉重，担縛幾乎叫我站不起來，幾番的沮喪，又幾番的掙扎着，這是一段好艱苦的日子，但這段日子我終於捱過了！

放榜了，入醫學院沒問題了！手拿着這一張薄紙，心中湧沸着多少的忍受和澀苦？我的心力沒有白費，我終於向自己證實了自己！但是真的沒有問題了嗎？媽會不顧一切的橫加阻止嗎？大學的功課更重了，我的才力可以勝任嗎？大學的費用更大了，我的經濟能力又可以勝任嗎？這是多得懷疑的問題呀！

我低下頭，看着手中薄薄的一頁紙，這是我的理想我的夢！我費了這許心血得到了這個機會，我怎能放棄……我不能放棄！無論媽對我再加以多大的壓力，無論我的前面還有更多的困阻，我都要熬下去，我都熬下去，我要我的夢想成真！

溫室中長的傻瓜

台大醫學院

一九七二年的夏天，是台大醫學院的大事，在深重的功課壓力下，竟然有人勇敢的起來擔任傻瓜的角色——籌組社會醫療服務隊。這羣傻瓜包括：要苦讀七年至少修滿二八三學分的醫學生、代表白衣天使的護士，和醫學院其他各系的學生，以及前來助拳的台大醫院的醫師和教授，他們的目的地是蘭嶼——一個在台灣外海的荒僻島嶼。

從那時起，每半年寒、暑假、醫學院均由學生自組醫療隊，上山入地到台灣每一角落；為了更美好的社會，他們甘願做一個勇敢的傻瓜。

我們受了文明的洗禮，由溫室中培養長大，這均是社會大眾的恩賜，所以我們要反哺社會，

使文明更深種於社會。

人人都知道「取之於社會，還之於社會」的道理。無論是工商界或是學生，只要是年輕人均有著蓬勃的朝氣，希望培養自己的社會更文明，更美好。台大醫學院的學生當然也不例外，把學到的醫療觀念和醫學常識灌輸到社會每一角落去。

這幾年來，我們到過了蘭嶼、澎湖、和花蓮、台東。目標有三：

(一) 醫療服務 (二) 學術研究 (三) 社會服務。

醫療服務包括設立內科、小兒科、婦產科、皮膚科、眼科……等組別，分別由一位或二位台大醫院醫師率領組員（醫學院高年級醫學生擔任）做一般性醫療，解決鄉村苦疾。學術研究是大學醫療服務隊的主要工作，為了使政府更了解當地的民俗和醫療狀況，我們做了各種病的統計，包括寄生蟲的分佈、肝炎病毒的分佈、小兒心電圖的變異……等等，甚至還檢驗了針灸對高血壓、止痛的效果。社會服務包括，衛生教育，環境衛生示範……等，主要的目的在於教育下一代根苗，能剷除社會不良風氣和提高衛生習慣，另一方面，藉著組員們熱心的為鄉民們服務，和他們討論環境衛生的重要，以期達到更健康的環境。

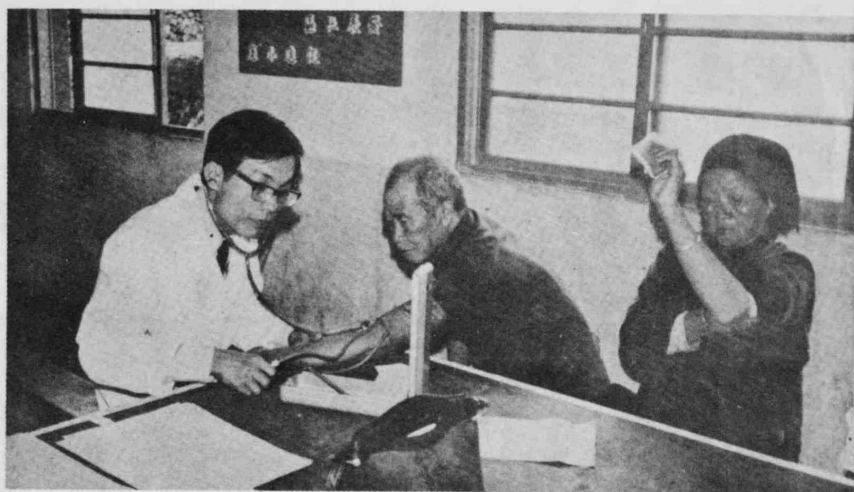
我們有一顆慈善的心，無時無刻希望社會永結在一起。我們有愛心有時間所以我們去做。而

且還要激發社會大眾的愛心，支持我們的行動。

無論那一隊去那個地方，從發啓、籌備到完成，均是學生們一手包辦。有辦文書、總務、事務的，更有去籌款、募藥的，在大家一致的努力下，和廣大社會的支持，我們均能如期完成籌備工作。

我們的經費是多方面提供的，包括社會上大企業，和慈善機構提供一半的費用，這些大機構包括國際獅子會，陶聲洋防癌基金會、醫學會……等。其他經費則由學校方面和中國青年反共救國團補貼。更有些無名氏不但捐錢而且附贈衣物和兒童書籍。似乎大多數人均和我們一樣，無時無刻希望社會永結在一起。

堅毅、沉靜、細密的準備、使幼稚的心靈趨於成熟、爲了更完美的社會，我們將自己所學致用於善意的行爲。「傻瓜」解除那病人的苦，便他們微笑得和大自然一樣美好。



澎湖義診，隊員爲病人診療。

我們曾經去過蘭嶼、澎湖、花蓮的卓溪鄉、豐濱鄉和光復鄉。今年七月底我們還打算第三度去蘭嶼，另一隊則去台東。這幾次行動中，社會、政府、給予我們很大的幫助，但我們真正所依靠的是堅毅、沉靜、細密的準備，和一顆善良的心，將幼稚心靈的理想，化爲成熟的花果。



花蓮光復鄉義診後在糖廠留影。

蘭嶼隸屬台東縣，距台東四十九哩，是太平洋中的小島。島上居民絕大部分是雅美族山胞，

我們組隊前往兩次，今年還打算去一次。一方面希望解除蘭嶼同胞的一般病痛，消除寄生蟲等傳染病，再方面希望灌輸健全的衛生觀念、促進環境衛生，達到預防疾病的效果。

澎湖是台灣海峽中的一羣列島，我們會兩度前往，我們盡量到偏遠之處，希望帶社會的溫暖到各個社會的死角。

隨澎湖隊前往的黃瑞煊同學說：「此次澎湖之行，我不敢說自己付出了什麼，但至少我發現了一些書本上所學不到的東西，體驗到了當一個醫生其所負的神聖使命，很盼望我們醫

學院的同學能夠摒棄狹窄的自私觀念，多花一點時間去關懷社會、服務社會、相信這樣子的生活會更有意義。」

我們去花蓮有兩隊，一隊去卓溪鄉，一隊去光復鄉及豐濱鄉，隊員們冒著風寒，爬上荒僻的高山，爲地方父老服務，隨卓溪隊去的鄭英彥同學是這麼說的：「醫療服務對某些人的觀念似乎就是帶藥去派發，但是更重要的，我覺得應是大学生走出象牙塔認識社會，服務社會，也是學生與老師聯誼的機會。豐濱隊的領隊麻醉科副教授趙繼慶醫師曾以行政院院長的一句話訓勉全隊隊員：『蔣院長說：「在這廣大的天地中，貢獻最大的人，就是在自己的小天地裏，盡最大的努力，去幫助別人的人。』」

我們在情感和友誼的天地中，沒有時空的阻隔，永遠、永遠的結在一起。

我們帶著惶恐的心情前往，却帶著快樂憂傷的心情離去。去時惶恐，是怕自己無法貢獻所學給鄉村父老，離時快樂，是因為彎著腰的人直立，痛苦的人快樂活潑，我們也不由得有了滿足感。但看到鄉村父老，無論老

老少少，男男女女，均含淚相送，怎能不憂傷？不知何年何月再來，不知我們走後他們未來如何！彷彿一切均是不可知！

回來後，隊員們常收到一些鄉村父老的來信，有認為藥效奇佳的再來索藥，有感謝我們的服務的老太太，還有就是那羣幫忙我們的熱情中學生，記得有位女孩特意畫了一張卡片給我們，上面寫著：「親愛的大哥哥、大姊姊！你們來到這個窮苦地方，為我們服務，不知如何感激你們，你們走後，我們會很懷念你們，希望你們能再來，不要忘了我們哦！」多輕巧富思想的女孩，他們內心充填的愛，比我們付出的還多，希望我們負擔得起，再努力從事社會服務。

從他們言談中，來信中，我們深信我們已將社會的溫暖帶給了負苦的同胞，他們也讓我們帶回感謝和愛，在我們的情感和友誼的天地中，沒有時空的阻隔，永遠、永遠的結合在一起，為更美好的社會共同努力。

不欺人、不欺己、由平凡踏實中求取傻瓜的傻勁和勇氣；希望社會中有更多的傻瓜，堅持自己的原則，為理想而共同奮鬥。

醫療服務回來最後一件工作就是編工作報告，其目的有三：

(1) 這是隊中所有的工作總結，是服務結束後的負責表現。裏面包含各組的工作成果，調查研究報告，以及對經費、慰問品藥品來源和出處的詳細交代，使那些支持我們的個人與團體能知道我們究竟做了些什麼事！更重要的是我們對當地社會的概況簡報和建議，讓有關單位能了解鄉間的現況、需求，以及各種亟待建設改良的地方。

(2) 這是隊中所有成員的心血集合，裏面有無形的點滴血汗，和有形的生活片段，只有真正參與這項工作的人，才能領略到我們服務的每一分每一秒，有些激動的人會心酸的掉淚，只因太感懷那段日子。

(3) 這可供未來醫療服務的指針，看看前人的路，能避免的難題就避免，不要把時間與精力作無謂浪費，另一方面參考選擇地點的條件，找出真正最需幫助的地方。

我們希望藉著大眾傳播工具，散播我們的觀念，希望社會中有更多和我們一樣的傻瓜，不為自己的利益，堅持自己的原則，為理想而共同奮鬥。

文明帶來的是幸福還是痛苦？文明會否使人不再樂天、簡樸、愛好自由？文明與自然究竟是抗爭或是交融？

醫療服務確實帶來不少好處，將文明帶入社會的死角，使貧苦的同胞得到同樣的醫療待遇，使政府了解社會的真正需要而著手改進，使醫學生走出象牙之塔，了解社會醫療狀況，進而產生服務鄉梓的勇氣，使學生參與社會工作，使幼稚的心靈趨於成熟。

但當醫療隊進行醫療時，有時發現假病取藥的人。領慰問品時，因少領而出口漫罵者，亦時有發生。本來純樸的鄉民，為何會起衝突，起勢利的心？是否是文明帶來？文明帶給人們的是幸福還是痛苦？原本悠遊於原野，無慮於「生死」的鄉民，當文明入侵時，是否會變成自私自利？這些都是不可忽視的。

也有人對醫療服務的最終價值產生懷疑，認為沒有完全施行公醫制度，就無法解決醫師分佈不均的事實，假如醫師分佈不均，醫療服務雖可解決鄉下一時的醫療問題，但是沒有永久持續的效果。我贊同此看法，公醫一日不施行，則鄉村醫療永遠有死角，但是這並不能抹殺醫療隊的價值。醫療隊就在彌補公醫制度施行前的不足，它一方面讓年輕醫學生了解鄉村醫療制度下的難題，一面使其熱愛鄉址，為故鄉服務。再方面建議政府公醫制度的重要性，找尋施行公醫制度的最佳時機，如此醫療服務的精神才能發揚光大。

總結：建立永久性組織，去計劃，去施行，考核，貫徹傻瓜們的傻舉。

一滴滴的水，滴在水溝裏沒有回响，一條水管引出儲水池的水，則細水長流，源源不斷。台大醫學院內的一份報紙型刊物——醫訊，第五十三期社論「醫療與社會服務」談到未來醫療服務的發展型態，它希望組織固定的社團，做計劃，施行，考核，在固定的社會死角，做持續性的服務，達到深遠的影響。我非常贊同此一看法，而且希望社會上的大福利機構，能永遠支持該社團。如此，則醫療服務必能深遠達於社會各個角落。

為了更完美的社會，做一次傻瓜也值得，甚至做一輩子傻瓜，只要社會美好，還有什麼話說？

THE WAY I SEE IT.

By P.C.

As medical students, it goes without saying that most of us are concerned with our studies, our pursuit of a 'noble' profession and a future 'license' to heal. On the other hand, it is also important to realize the role of extra-curricular activities in a complete education. We all nourish the ideal of having closer contact with the community rather than digging blindly into the books. But in practice, isn't it easier said than done?

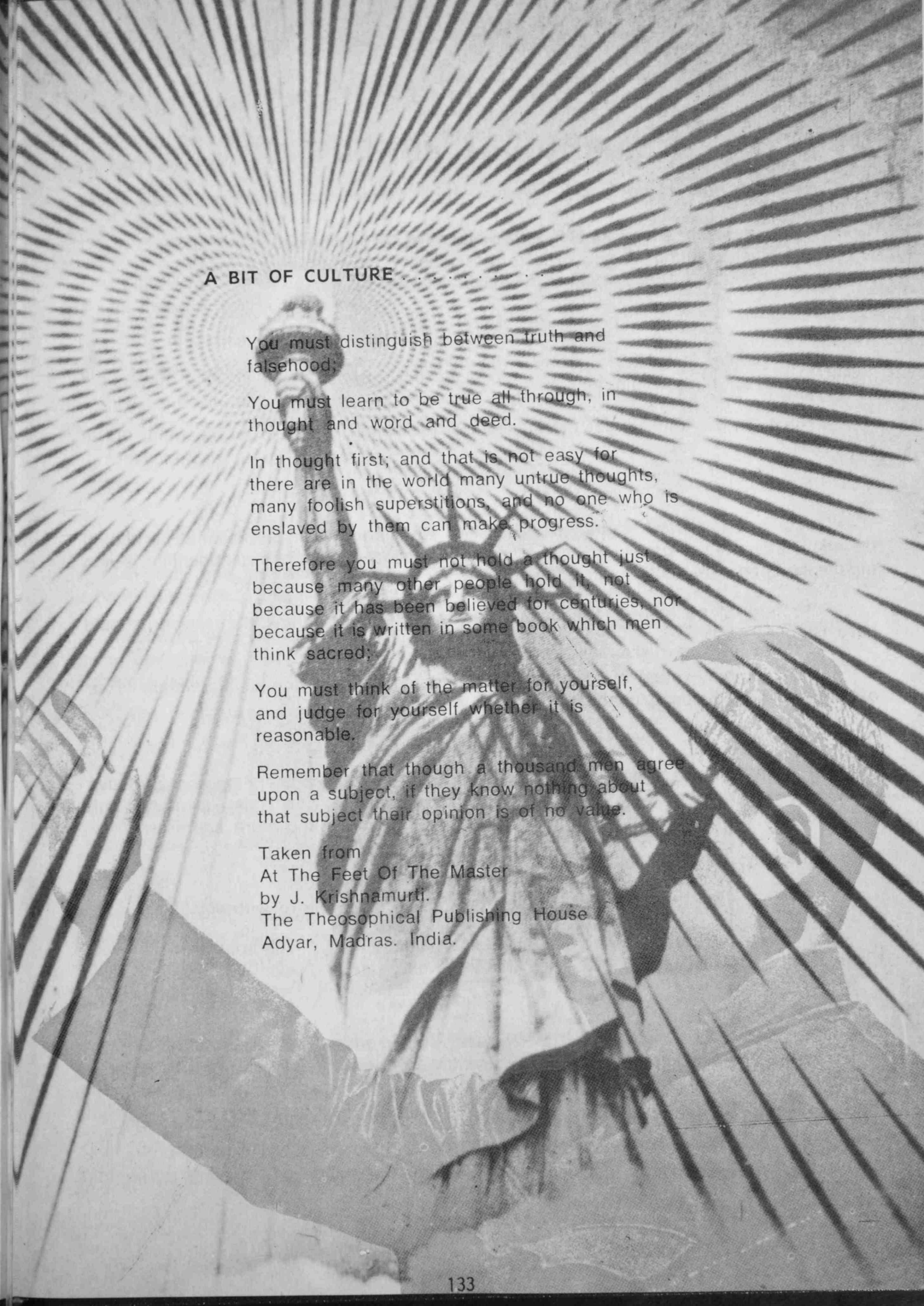
Our recent SHE project, which was so well-received by the public, was advised and supported by various organizations, members of the staff, and above all, a surprisingly large number of fellow students. It seems encouraging at first glance to see so many of us involved in community service. Yet, a closer look will show that it is to only a handful of students that real credit must go. They are the ones who have really sacrificed time and energy from beginning to end in making the project the way it was. Most others, in offering their service, were only demonstrators or helpers in one way or another, not that they were unconcerned, but that they saw to it that their contribution would not interfere with their own engagements or their studies.

In the meantime, when we look at our present Medical Students Council, we find that several important posts are still vacant at the time of writing this article, including the Chief Editor of this journal. Considering the amount of talent this Faculty harbours, it is really heartbreaking to see such things happen.

Perhaps students are a bit scared of taking up long-term responsibility. For once they have committed themselves, they will face up with, more than any body else, the ever mounting pressure of a fully-packed curriculum on top of their extra-curricular activities. And who knows? In the end, they might even be charged with some senseless, fastidious questions in the Council, AGM, EGM or what-not!

If we are to find the answer to this, then maybe the root of this problem lies with the 'Establishment'. Too many things have been said about the pitfalls of our system. It would be pointless to further elaborate on these here; any student who has been here for merely half a year could realize this. In the midst of all the frustrations and disillusion, perhaps it is advisable for those at the top to listen to and to reflect upon the welfare and problems of the students, rather than just deliver lectures and give tests. Less tests and a lighter schedule may not necessarily be what the students want, for they do fully appreciate that tests, as a form of continuous assessment, form an integral part in creating a competent doctor. What are actually needed here are a friendly attitude and a deeper understanding from the teachers in their teaching, as well as in guiding students in other aspects of their growth. Only too often do we find ourselves helpless and lost, but fellow students are too inexperienced to help while the teachers seem too academic to be approached. If this gap can be bridged, and some form of person to person contact can be established between teachers and students, then the students would be relieved of the heavy mental burden in taking up extra curricular activities. More important still this could also boost up their interests, and above all, confidence in their studies. In the end, this might prove beneficial to all.

Finally, in this part of the world, where passing examinations is the name of the game and studying is the rule, those students who render their service available should be looked up with utmost admiration and respect; while those who engage themselves purely in their own work and affairs are not to be condemned. After all, to get a 'license' to heal is what we all are here for.



A BIT OF CULTURE

You must distinguish between truth and falsehood;

You must learn to be true all through, in thought and word and deed.

In thought first; and that is not easy for there are in the world many untrue thoughts, many foolish superstitions, and no one who is enslaved by them can make progress.

Therefore you must not hold a thought just because many other people hold it, not because it has been believed for centuries, nor because it is written in some book which men think sacred;

You must think of the matter for yourself, and judge for yourself whether it is reasonable.

Remember that though a thousand men agree upon a subject, if they know nothing about that subject their opinion is of no value.

Taken from
At The Feet Of The Master
by J. Krishnamurti.
The Theosophical Publishing House
Adyar, Madras. India.

MEDICAL JOKES

A doctor was taking a walk with his wife when a beautiful young blonde waved to him.

'Who was your friend, dear?' asked his wife.

'Oh, just a young woman I met professionally,' he explained calmly.

'Professionally, heh?' cooed his wife. 'Yours or hers?'

* * *

St. John's instructor: 'Outline the steps to be taken in the rescue and resuscitation of a drowning man.'

Keen pupil: 'One — get the man out of the water. Two — get the water out of the man.'

* * *

In a medical ward a student was asked what dosage of particular drug should be administered to a patient. 'Five grains, sir,' replied the student confidently. But a minute later he raised his hand diffidently.

'Professor,' he gulped, 'About your last question . . . I think the answer should have been ——'

Don't bother, young man, 'broke in the professor,' glancing at his watch. 'Your patient has already been dead for thirty-five seconds.'

* * *

A young man in a metropolitan hospital is attended by a charming and attractive young nurse. As he is getting better, he claimed that he has developed an indescribable affection for the nurse and he is getting more and more aggressive.

One day, he said to the nurse,

"I don't want to get better, Nurse, for I am deeply in love with you."

"I think you probably won't," replied the nurse amiably. "The houseman saw you trying to kiss me last night. He is my fiancee."

* * *

The captain of the basketball team was disturbed when he finds himself in a bitter soar throat before an important match. Hurriedly he went to a G.P. who has just moved to the area.

Knocking on the door, he was greeted by the doctor's young and pretty wife.

"Is the doctor in?" the young man whispered in a bronchial tone.

"No," whispered back the young wife, looking quickly around, "come on in!"

Doctor to call girl: 'You look run down. My advice is that you stay out of bed for a week or two.'

* * *

An old G.P. was seeing one of his patients for the first time.

'Funny you haven't been to see me before,' he snapped. 'Have you consulted any other doctor your condition?'

'No, sir,' stammered the patient. 'Only the chemist.'

'Good heavens, man!' snorted the angry doctor, 'Have you any sense at all? This just shows how stupid people can be. The chemist isn't medically qualified — you had no right to consult him. And what nonsense did he tell you?'

'He told me to come and see you.'

* * *

A young husband was left standing nervously outside the bedroom.

In two minutes the doctor, asking if he could borrow a carving knife. The husband obliged and the doctor disappeared back into the room.

Soon he was out again, this time asking for a hammer and chisel. The husband rushed downstairs, returned with a hammer and chisel, but now was in a fearful state of nervous agitation.

The doctor went back into the room, only to return five minutes later.

'I am sorry,' he said, 'but I'm afraid I need a crowbar.'

'A crowbar?' screeched the poor husband. 'For heaven sake, doctor, can't you get my wife in hospital for something as traumatic as this?' 'What's wrong with her?'

'I haven't a clue,' said the doctor. 'I'm still trying to get my bag open.'

* * *

Doctor (outside sick-room): 'I'm rather worried about your wife's condition, Mr. Yuen, I don't like the way she looks.'

Husband: 'I haven't liked it for years.'

* * *

An old doctor went on holiday, leaving his son, who had recently qualified in medicine to look after the practice. On his return his son informed him smugly that during his absence he had effected a complete cure of the back pains which had troubled an elderly private patient for years.

'You did a grand job there, son,' smiled his father. 'Especially as it were those back pains which put you through medical school.'

臨江仙

卅人世之士

余嗜武俠小說，每閱終宵不能釋卷，書中常叙名家弟子，英風俠骨、匡危濟世，令人望風懷想，欽羨不已。作是詞，非敢引以自況，惟聊慰孺慕之思矣。

來自五湖四海，師成南北西東。藏經閣裏龍蛇伏；

笈典瑯瑤誦，刀落化銀虹。寶刹面壁五載，江湖笑傲餘生。

劍匣詩囊長相伴，金丸除魔困。指掌蕩煙塵。

註：(一)本門弟子，各階層、國籍皆有，而又於畢業後散佈世界各地。(二)指圖書館。(三)解剖時刀光劍影，手法純熟也。(四)昔年菩提達摩於少林寺面壁九年，參透禪機，是為禪宗初祖，武俠小說作者多附會七十二武功秘笈為其所作。此處引喻為五年醫學生涯，收獲甚豐。(五)猶指手術刀與醫科參考書。(六)俠士所用之暗器，能解困於眉睫之間，在此指各式各類之藥丸，治療百病。(六)手術也。

病理藥物微生物學歌

病入膏肓若等閒，
理性失常未算難。
藥到春回驚神術，
物與民胞為銘鑑。
微妙身軀由天造，
生老病死乃循環。
學以致用扶傷折，
歌頌聲揚震醫壇。

生活習作

偶感(其一)

容龍小閣優游臥，
市井塵囂慷慨歌，
豪情化作寒茫日，
休怨人間怪象多。

(其二)

前人捨我去成煙，
黃鶴紅樓益渺然，
跌宕縱橫如不取，
此心誰與共相仙。



她愛在黑暗裡漫行

譯作

她愛在黑暗裡漫行
在樹林的陰閉裡
漫行、漫行……
在她心底裏
她多麼渴慕光明
但——她不知道
在她頭上
碧空朗朗
正閃耀着無數星星。

考試後

□楊峯

想不到，考試之後，竟是那麼的沈悶，在陸祐堂爭分奪秒，揮筆疾書的時候，不是期望考試快過嗎？重担之後，應舒過一口氣，却落得百無聊賴的鬱悶。

考試之前，拉記去。考試之後，那里去？最乾脆的辦法，是到體育館打幾場波，打完再算。在醫學院里，這辦法也是常見的。但更多的同學却是手足無措。在宿舍狂讀幾個星期了，回家去吧。回家也沒有什麼好做，只有更悶；還是在宿舍呆上三兩天，看看情況再說。考試成績怎樣，有時也會想起。結果悶又加上煩。算了，有什麼可以消磨時間的都行。漫無目的散散步也好。

那種沈悶不是沒有來由的。同樣的沈悶，以前也有過。中學會考後是這樣。大學入學試後也是這樣。等待放榜當然是一個因素，但不是全部。考試前不也是等待嗎？那時是讀得沒趣，不像現在般百無聊賴。那時，有一個考試在前頭，有一個目標。現在，考試完了，担子放下了。但那個担子竟就是我們的大目標。担子放下之後，目標同時消失，再也看不見前面，再也沒有什麼目標。於是沈悶是無可避免。

但是，沈悶既不是天生，出路總是有的。那天，就碰到笑口吟吟的文章，同我介紹張曉風的小說。拉記裏，少見勤書的青年，却有不少同學埋頭校對「性與健康展覽」的小冊子。還有，那三三、五五參加「中國科技史展覽」的同學，捧着層疊的參考書，從馮平山圖書館跑下來，差點兒就撞過滿懷。這些同學有一種滿足。在他們的臉頰上，找不到兩天前的考試陰影。

事實告訴我，我們的心仍是年青的。週圍發生的事物衝激着我們，召喚着我們。冷冷的空氣冷得一個人蜷縮起來；很多人走在一起就毫不猶疑地點起火花。我想：醫學院走過那麼多個年頭，拋棄了那麼多老路，靠着大眾的力量，新路總是會走上的。

編

後

語



在寫本文之時，我很有些混雜的感慨，使我遲遲難於下筆。在醫學院所見所聞和作為編輯工作者等來自各方面不同的滋味和體驗，一時間都紛至沓來，打擾着我的思路，教我不知從何寫起。即使花去了極大的心力，寫成文的總覺只是千頭萬緒中的一線，彷彿隔靴搔癢，無法搔得着癢處。即使如此，我也只好把極紊亂的感情單純化了寫下來，作為我對過去永遠告別的一個標誌。

憑著數篇論文、雜文、詩創作、笑話等，我們實不敢奢望這本年刊能對醫學院作出任何改良和貢獻。我們好比是把一粒砂子丟入一池春水，只望稍稍打破它的沉寂吧了！

錢鍾書曾說理想是一面鏡子，在事前是一個莫大的啓發，但在事後，却變成了一個慘烈的對照。對於一個作者來說，世上苦事之一便是閱讀自己的作品，因為心目中的文字好比是春天天空裏的白雲，是鑲了「玳瑁邊」的，但寫下來的字却像是生了雙腿一樣，偏偏走到最糟糕的地方去。當我閱及我的文字時，我是痛苦的，而且比痛苦更甚的，是因我了解到在香港、在醫學院，人文文化，包括文藝在內，只是擔當着小婢女的角色，是可有可無的。中國的文化力量在香港是肯定的單薄；五四時代那種波瀾壯闊的精神並沒有在這塊砂土留下根苗。

作為「對稿子」生物，我更意識到現存環境下，編輯工作那份無可抗拒的「悲劇」力量——但理想到底是理想，對於一羣被困於屋子的勞碌，就像從縫隙裏漏進來的星光一樣，永遠是一種莫大的鼓舞和吸引。在中學時代，學校當局往往對校報的文章內容嚴加管制，比較社會性的文字是受限制之列。在我認識的人中，便曾有因抗議校方這種無理管制而集體辭職的。這就彷彿是中國二零年代，政府向青年學生倡導「莫談國是」一樣，對青年是一種極大的打擊。在大學，基於報刊由學生自治，管制設施不復存在，這種矛盾卻明顯起來，這種矛盾在醫學院內尤其其明烈。像醫學院這樣大，缺點是免不了的。但除了是表面化的個人交往之

外，一般人對這種缺點只一味保持著鍼默態度。例如某些學科部，其作風頗相近於官僚主義，而同學對這種現象，往往諱莫如深，這原是可以理解的。但對於其他事物，一般人的反應為什麼也只止於冷淡中的熱烈？象牙塔的陰影高於一切，功利思想普遍存在，在這兩種基本矛盾的限制下，種種突破的力量都被阻撓了。雖然近幾年醫學生的心態已有所改變，很多人已能衝出象牙塔。但仍有多人徘徊不前，仍有多人只「專」而不「紅」，仍有許多人只醉心於「隔離的智慧」，而對外界麻木不仁。我常細思，如果最基本、最大的矛盾未能解決，那麼環繞著它的各種努力，只能歸於表面化，止於對自我的一種心理慰藉，而多多少少蒙上一層無可奈何的純然為求自我延續的可哀性。

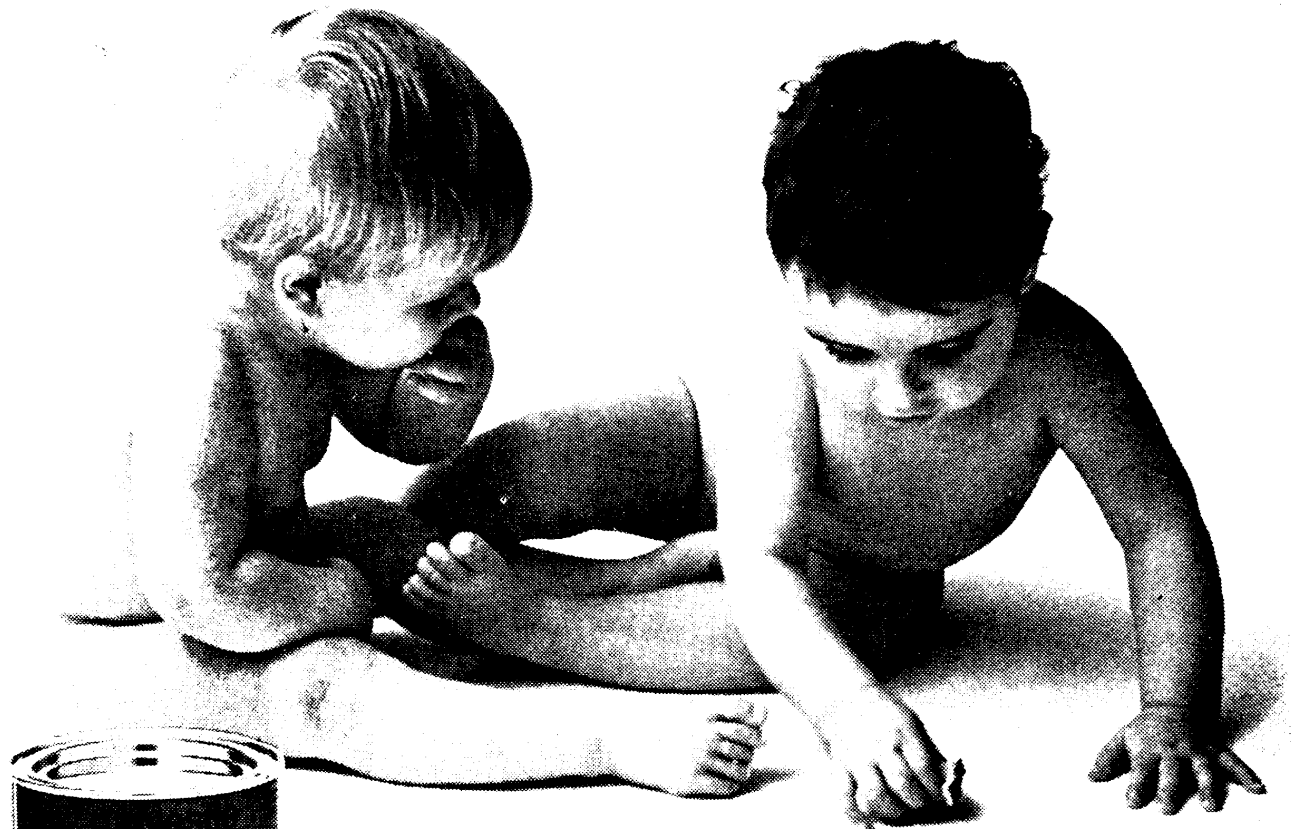
「臥眠憂戰伐，無力正乾坤。」我無意去掩飾個人才力的薄弱。但在醫院之內，我確見不到有甚麼樣的「文壇」。我所指的「文壇」，並不是六朝金粉那種駢四驢六，鏤金錯采的「文壇」，而是指「哀樂之心感，而歌詠之聲發」的「文壇」。而前社會種種需要改善的現象，面對着大大小小的各種內部矛盾，我驚訝於我們所能做的有限、的蒼白無力。或許我們都不算是社會工作者，但我們將要面對的却是來自社會的人。

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面對著四周的渺茫，而對着重重的困難和挫折，我並沒有忘記與我同行的人，也沒有忘記去希望，有一天我們真的能衝出象牙之塔，打破個人本位主義，着實的幹一點事。我也沒有忘記，這只是一個希望，在我紛亂的思念之下，我無以完結這篇文章，只好鈔魯迅一首詩收場：
萬家里面沒蒿萊，敢有歌吟動地哀，心事浩茫連廣宇，於無聲處聽驚雷。

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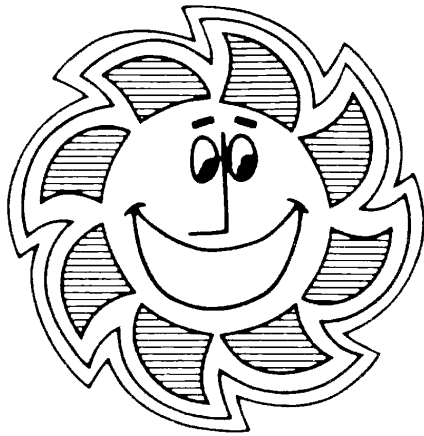
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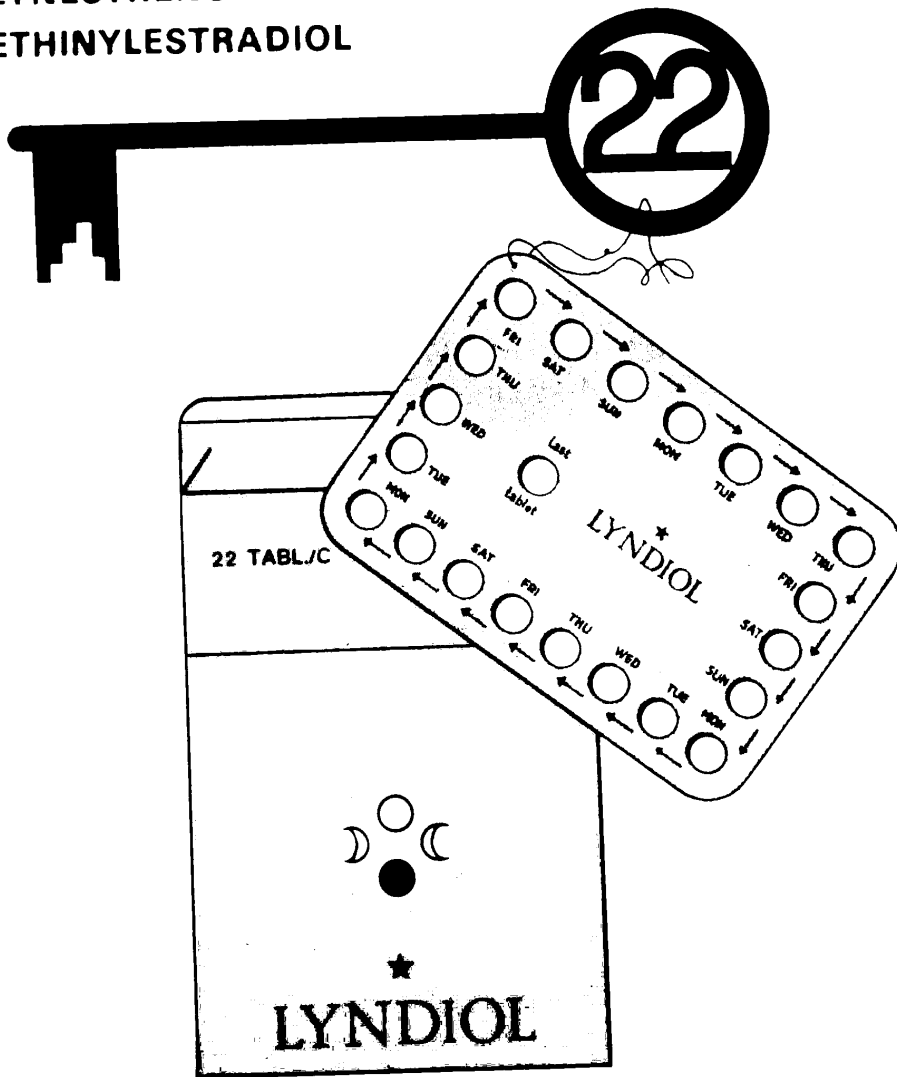
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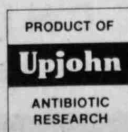
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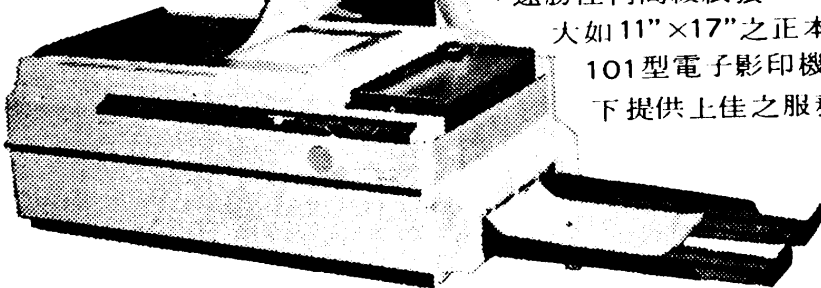
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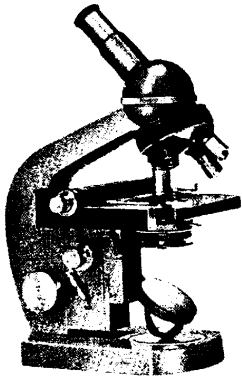
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