C-RC-12

Inhaled Steroid Therapy is Associated with Improvement in Quality of Life Among Bronchiectasis Patients

Wong M, Chan S, Yan C, Chan-Yeung M, Ho JC, Lam B, *Ooi GC, Ip MS, Lam WK, Tsang KW
Depts of Medicine and *Diagnostic Radiology, University of Hong Kong, Hong Kong SAR, China

Introduction: Bronchiectasis is a common chronic infective and inflammatory airway disease among the Orientals. St George's Respiratory questionnaire (SGRQ) is a standardized quality of life instrument consisting of 50 items grouped under three components, namely symptoms, activity and impact. Although conventional structural and disease activity markers are important end points for assessment of treatment efficacy, trials of potential therapeutic agents should also be assessed. We have therefore employed our recently validated Hong Kong version of SGRQ(-HK) to assess the response to inhaled steroid treatment in patients with bronchiectasis.

Methods: We have therefore quantitatively assessed the SGRQ-HK on 76 stable bronchiectasis patients, who received either fluticasone 500μg BID (FG, n=38, 20F, 57.7 ± 14.6 yr) or matched placebo (PG, n=38, 33F, 58.9 ± 14.2 yr) administered via the Accuhaler device for 24 weeks in a double-blind randomized fashion. SGRQ-HK assessment was performed by the same research assistant who had no knowledge of the treatment protocol. The three domains of SGRQ-HK, namely symptoms, activity and impact scores, as well as the total combined scores, which took account of weighting of each of these components, were calculated for baseline and 24-week.

Results: After 4-week treatment with inhaled steroid therapy, the fluticasone patients had improvement (i.e. lower score) in symptom (baseline median 46.0, 4-week 31.3, $p<0.001$), activity (34.8, 33.5, 0.61), impact (28.8, 24.9, 0.13) and total (33.7, 28.5, 0.01) scores when compared with baseline data. After 24-week treatment with fluticasone, symptom (36.2, $p=0.03$), activity (26.8, 0.04), impact (20.7, 0.003) and total (25.2, 0.003) scores all significantly improved when compared with baseline. In contrast, patients who received placebo treatment did not have significant changes in the aforementioned parameters ($p>0.05$) except there was an improvement of symptom score at 4-week (38.5), when compared with baseline (49.1, $p<0.001$). There were no significant difference in the pre- and post- treatment lung function parameters ($p>0.05$).

Conclusion: Our results show that quality of life parameters appear to improve with inhaled corticosteroid therapy in patients with bronchiectasis. Our results have major implication in future management of these debilitated patients.

C-RC-13

GSTT1 Null Genotype is Associated with Lung Cancer in Females in Hong Kong

Chan M, Tan-Un KC, Chan H, Lam WK, Tsang KWT, Ip MS
Department of Medicine, The University of Hong Kong, Hong Kong, SAR, China

Glutathione-S-transferase enzymes are the most important group of enzymes for detoxification. Deletion of GSTM1 genotype has been shown to be associated with increased risk of squamous cell carcinoma of lung. The purpose of this study was to investigate the role of polymorphisms of GST enzymes at loci GSTT1 and GSTM1 in the pathogenesis of lung cancer in Hong Kong. 162 consecutive lung cancer patients diagnosed by pathology and 156 controls without lung cancer matched for age and sex were recruited for this study. Venous blood was taken and DNA extracted for genetic studies. Determination of GSTT1 and GSTM1 genotypes was carried out using PCR-based techniques. The mean ages and sex distribution were similar in both patients and controls. A significantly higher % of ever smokers were found in patients than controls. The distribution of GSTT1 null genotype among patients and controls by sex and smoking is shown below:

	Nonsmokers n (%)		Ever smokers n (%)		Total n (%)	
	Males	Females	Males	Females	Males	Females
Cases	21 (77.8)	33 (63.5)	47 (61.8)	6 (85.1)	68 (66.0)	39 (66.1)
Controls	33 (75.1)	28 (45.2)	14 (29.4)	1 (50.0)	67 (72.8)	29 (45.3)
OR 95% CI	1.17 0.37-3.63	2.11 1.00-4.48	0.67 0.31-1.45	6.0 0.18-196	0.72 0.38-1.34	2.35 1.13-4.9

A significantly higher % of female patients with lung cancer had GSTT1 null genotype compared to controls, especially among nonsmokers. The % of female patients who were ever smokers with the GSTT1 null genotype was higher than controls but was not significant because of small sample size. There were no differences in the distribution of GSTM1 null genotype among patients and controls in different smoking and sex groups. In conclusion, GSTT1 null genotype increased the risk for lung cancer in females and may play a role in the pathogenesis of lung cancer in these patients.

This abstract is funded by: the Anti-Cancer Society of Hong Kong, Hong Kong, SAR, China.