

HELICOBACTER PYLORI IgG CORRELATES WITH DISEASE ACTIVITY IN CHINESE PATIENTS WITH BRONCHIETASIS

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Bronchiectasis is a common disease in Hong Kong and affected patients suffer from significant morbidity with regular sputum production, haemoptysis, and recurrent exacerbations. *Helicobacter pylori* (HP) is casually related to chronic active gastritis and has been identified in tracheobronchial secretions. As bronchiectasis is largely idiopathic and bears striking resemblance to ulcerogenesis in its cytokine-mediated pathogenesis, we have performed this study in Chinese patients with bronchiectasis. HP-specific IgG was measured by using ELISA techniques on subjects with steady bronchiectasis (n=100; mean age/SD 55.1 yrs/16.7), active tuberculosis (TB) (87;57.3/19.1) and healthy asymptomatic volunteers (94;54.6/7.6). In the bronchiectatic group, 76% of subjects were HP sero-positive, which was significantly higher than that of the control (54.3%, p<0.001) and TB (52.9%, p<0.001) groups despite adjustment for social class, household person number, and age; the latter two groups were not significantly different (p>0.05). Bronchiectatic patients who produced sputum >5ml/day had a significantly (p<0.001) higher sero-prevalence (83.1%) than those who produced less (58.6%). HP-specific IgG levels of the control were significantly lower than that of the bronchiectatic (p<0.002) but not the TB group (p>0.05). A high HP sero-prevalence is found in bronchiectasis which appears to relate to sputum production. Further basic and clinical studies are underway to evaluate the possible pathogenic role of HP in steady state bronchiectasis.

HELICOBACTER PYLORI SERO-PREVALENCE IN ASTHMA

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Asthma affects approximately 10% of the population at any one time and is characterised by the presence of cytokine-mediated airway inflammation leading to smooth muscle contraction, oedema and progressive airway damage in some cases. Similar to asthma, bronchiectasis is also a common disease in Hong Kong and affected patients also suffer from cytokine-mediated airway inflammation. In view of our recent finding of an increased sero-prevalence of *Helicobacter pylori* (HP) in bronchiectasis, we were also interested to determine this in asthma and its correlation with clinical parameters. We have recruited steady state asthmatic patients and determined their HP- and Cag A-specific IgG's using ELISA techniques. Altogether 90 consecutive subjects (mean±SD 42.6±16, range 16-77 years; 38M; 5 current, 15 ex- and 70 never smokers; mean±SD duration of asthma 17.3±11.6 years; FEV₁ 81±27.9% and FVC 96.1±23.6%), were recruited from the Asthma Centre of the University of Hong Kong. Mean±SD and sero-positivity for HP IgG were 24.8±19.1 U/ml and 51.2% respectively. Similarly, mean±SD IgG and sero-positivity against Cag A were 0.02±0.01 U/ml and 0% respectively. There was no correlation between the serum HP IgG with age, gender, FEV₁, FVC, duration of asthma on regression analysis. The sero-prevalence of IgG against Cag A and HP are comparable with control population (p>0.05). We conclude that, despite its similarities with bronchiectasis, there is no overt increase in sero-prevalence of HP in Hong Kong patients with asthma.