

G-RC-2

FACTORS ASSOCIATED WITH DEFAULT IN TUBERCULOSIS TREATMENT IN HONG KONG

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We investigated factors associated with default in treatment among patients who entered the tuberculosis (TB) treatment program offered by the Government Tuberculosis and Chest Service, HKSAR. A detailed chart review was carried out on 965 randomly selected cases (from a total of 5689) treated for TB in 1996. Of the 965 patients, 82.8% completed treatment, 8.2% defaulted, 4% died, 3.3% transferred out and 1.3% were still on treatment at 12 months. 47% of those who defaulted treatment did so during the first month of therapy. Four controls for each defaulted case were randomly identified from those who completed treatment for comparison. There were no differences between cases and controls in age and gender distribution, marital status, and prevalence of symptoms, hospitalization, coexisting medical illness and type of disease (pulmonary or extrapulmonary). In those with pulmonary disease, there were also no differences in the extent of disease, prevalence of bacteriologic confirmation, drug resistance and side effects from drugs between cases and controls. 21.5% of cases and only 2.2% of the controls had a previous history of default from treatment. There were more current smokers among cases than controls (47.9 vs 23.3%); more drug addiction (12.7 vs 1.9%) and alcohol abuse (10.1 vs 2.8%). There was only one case with HIV infection among the controls and none among the cases. Multiple logistic regression was carried out to determine the risk factors associated with treatment default. A previous history of default was found to be the most significant risk factor (OR 11.5, 95% CI 3.8-34.5, $p < 0.001$) followed by a history of drug abuse (OR 5.4, 95% CI 1.6-18.8, $p < 0.01$), none of the other factors was significant.

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G-RC-3

PRO-INFLAMMATORY ROLE OF GASTRO-OESOPHAGEAL REFLUX (GOR) IN STEADY STATE BRONCHIECTASIS

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The pathogenesis of bronchiectasis, a common respiratory disease in Hong Kong, has a large inflammatory component, which is partly independent of chronic infection. This continued airway inflammation, which is largely idiopathic in origin, maintains a vicious circle of events leading to perpetuation of airway damage. We have recently shown that a presence of GOR symptoms is associated with more severe bronchiectasis (Eur Respir J 1999) although the mechanism for this association is unknown. We have therefore performed this prospective study to evaluate GOR in 23 patients (14F; mean age 55; mean FEV₁/FVC=1.0/1.71) with stable bronchiectasis, but no upper gastro-intestinal symptoms. We have also determined 24 volume and 24h sputum outputs of leukocytes, and the important pro-inflammatory mediators including interleukin(IL)-1, IL-8, tumour necrosis factor(TNF) α and leukotriene(LT) B₄. A two-channel Altimony oesophageal pH catheter was also passed into the esophagus nasally and kept *in situ* for 24h. The upper channel was situated at the upper oesophagus whilst the lower just above the oesophageal sphincter. These recorded the no. of reflux episodes (RE), no. of reflux >5min, time pH<4, fraction time pH<4, and DeeMeester Score for each patient. The no. of bronchiectatic lung segments ($r=0.48$, $p=0.03$), 24h sputum vol (0.72, <0.001), sputum output of IL-1 (0.50, 0.04), and TNF α (0.93, <0.001) correlated with % time pH<4 in the upper oesophagus. The no. of bronchiectatic lung lobes also correlated with the 24h sputum output of TNF α (0.64, 0.02). Our original results strongly indicate a pro-inflammatory role for silent gastro-oesophageal reflux in bronchiectasis, and have major therapeutic and pathogenetic significance. (Supported by a Hong Kong University CRCG Grant)