

The continued threat of tuberculosis

The notification rate of tuberculosis (TB) in Hong Kong fell significantly from the 1950s to the early 1990s. Since 1996, however, the rate of notification of TB has increased,¹ and is now 10-fold that of other developed countries. It is possible that the rise in TB is not real, but merely reflects better reporting. Analysis of the origin of TB notifications shows that there has been an increase in reporting from Hospital Authority hospitals, especially from general hospitals other than traditional 'chest hospitals'.¹ Notification of TB from the private medical sector constitutes only a small proportion and is irregular. Since the practice of notification from the Hospital Authority has not significantly changed, it is more likely that the rise in TB is genuine and is not due to a change in reporting attitudes among doctors. For a rise in TB to occur, an increase in the pool of infected individuals and/or a decrease in host immunity are necessary. In fact, 84.6% of all cases of TB are due to newly acquired infection rather than re-activation of previous infection.²

Tuberculosis remains underdiagnosed. A survey at Queen Mary Hospital showed that 2.9% of autopsy cases had TB first diagnosed postmortem.³ Diagnosis of TB is easily missed among elderly people who may present with non-specific symptoms and atypical chest X-ray findings.⁴ In this issue of the Journal, Tam et al² describe an excessive risk of TB among elderly people—34.5% of people with TB were older than 60 years, and 77% of the elderly patients were men. Elderly people also had a high mortality rate of 9.4%. This may be due to a delay in the diagnosis of TB in this population. Such a large pool of infected elderly people would contribute to the high notification rate of TB. With an ageing and overcrowded society, this reservoir may become increasingly important. As the tuberculin skin test is not specific for screening purposes in elderly people, chest X-ray is essential for diagnosing this disease.⁵ Nursing home staff should receive education about the high incidence of TB among the elderly. Another potential source of infection is treatment defaulters. In 1996, only 80.6% of patients with TB at the Tuberculosis and Chest Service, Department of Health, completed treatment at 12 months.² This was below the goal of 85% set by the World Health Organization. Eight percent of patients defaulted treatment during this period and 39.2% of defaulters were still infectious at the time of default.⁶ Measures to prevent treatment defaults are urgently needed. If an infectious patient refuses treatment, the medical practitioner simply asks the patient to sign a form and no further action is taken. In New York, however, legal detention of defaulters is sometimes employed for the protection of the community.⁷ In Hong Kong, similar legislation exists, but it is seldom enforced.

Treatment defaulters are also responsible for the emergence of drug resistance. The Government Chest Service treats approximately 80% to 90% of all notified TB

cases, and adheres to published guidelines.⁸ Private doctors treat the remaining 10% to 20% of patients. There is no information on how these patients are treated by private practitioners. It is possible that some patients may receive suboptimal regimens or generic formulations of anti-TB drugs. This will also create the problem of drug resistance. Every practitioner should avoid generic medications for TB and adhere to the drug treatment guidelines.

Immigrants from mainland China are unlikely to be a source of infection, as the percentage of Chinese immigrants among patients with TB has fallen since 1985.¹ There is an increasing flow of people across the border with mainland China since 1997, however, and the incidence of TB is higher in Guangdong than in Hong Kong. There is speculation that visitors to mainland China may catch TB and bring it back to Hong Kong, although this issue has not been examined in detail (personal communication). HIV infection is responsible for a resurgence of TB in many countries. In Hong Kong, HIV infection is so rare that it is unlikely to be an important source of TB infection.

In conclusion, much needs to be done to reduce the source of TB infection. A high index of suspicion among elderly men coupled with strict adherence to drug treatment guidelines using directly observed therapy is essential. More effort should be made to detect and prevent treatment default. Every case of TB, including those treated at private clinics, should be notified so as to initiate contact tracing. There should no longer be complacency towards TB.

SY So, FRCP, FRCPE

Honorary Consultant Chest Physician
Hong Kong Sanatorium and Hospital
Happy Valley, Hong Kong

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