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LUNG ALERT

High index of suspicion required when screening new entrants for tuberculosis

▲ Laifer G, Widmer AF, Simcock M, *et al*. TB in a low-incidence country: differences between new immigrants, foreign-born residents and native residents. *Am J Med* 2007;**120**:350–6.

In this Swiss study, the authors divided 385 patients with suspected tuberculosis (TB) into three groups: immigrants, foreign-born residents (from moderate- to high-incidence countries) and native residents. Immigrants displaying an abnormal chest radiograph on entry to the country were compared with the other two groups who had suspected TB. Each of the groups was assessed for clinical signs and symptoms of TB, laboratory markers of inflammation and sputum culture.

The results showed that new immigrants who were later diagnosed as having active TB, either on the basis of culture results or response to treatment, failed to display traditional clinical signs and symptoms (17% of immigrants had night sweats, compared with 39% of native residents) and mounted a lower inflammatory response systemically. Seventy three per cent of immigrants had a normal C reactive protein level, with the mean being 17 g/l compared with a mean of 67.1 g/l in foreign-born residents and 90 g/l in native residents. The immigrant population group also yielded fewer positive sputum cultures but had a higher proportion of multi-drug resistant strains. It appeared that the main factor leading to a diagnosis of TB in the immigrant group was an abnormal chest radiograph.

The authors concluded that a chest radiograph alongside rapid diagnostic tests, including sputum smear and PCR, seemed to be most effective at reaching the correct diagnosis rapidly. The authors do point out that the differences in clinical features seen may be due to selection bias because all new entrants were screened, whereas only residents who presented with disease were included in the study. Nonetheless, it is important to carefully work up new entrants with abnormal chest radiographs—a message particularly important in countries with low incidence rates for TB. The authors suggest that post-migration follow-up in addition to active testing should be reinforced to prevent the slippage of positive individuals through the net of passive testing.

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