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Pre-immigration screening for pulmonary tuberculosis

From the authors:

The authors thank BHUNIYA [1] for his interesting comments on our article published in the *European Respiratory Journal* (ERJ) [2]. Tuberculosis (TB) screening policies are influenced by the structure of the national TB programme, the existing financial resources, the expertise of available professionals and the sense of apprehension expressed by the local population in the host country.

The aim of our study was to evaluate the unique screening process performed in Ethiopian immigrants arriving in Israel, and to share our experience with the *ERJ*'s readers.

The tuberculin skin test (TST) is considered the preferred method for screening latent TB infection (LTBI) in immigrants originating from countries with high rates of TB [3–5]. This method can potentially detect all patients with LTBI [6] in a simple, inexpensive and sensitive fashion. The merits of this instrument are increased when the physician considers the patients' age, previous TB exposure and past BCG vaccination in addition to the TST results. The interpretation of the TST using those additional data increases the specificity of the test [7].

Chest radiography (CXR) is considered the preferred test for the immediate detection of radiological findings suggestive of active pulmonary TB (PTB) [8]. The reliability of CXR depends on the experience and interpretative skills of the reader [9], knowledge of the sex and HIV status of the patient [10] and the quality of the film. In addition, it can detect abnormalities compatible with previous TB infection. Therefore, some experts recommend this instrument for screening immigrants originating from high-TB-incidence countries for LTBI [11].

As for the interpretations of the CXR, readers should be aware that the same team consists of three radiologists, who are working in the same hospital and have performed this task for nearly 7 yrs, while decreasing their inter-observer variability. As for the individual risk of radiation while performing CXR, the literature does not see or prove risk to the diagnosed patient if it is performed within the indication of screening or future treatment. It is also known that CXR is not commonly performed in Ethiopia for this low-income and rural people,

and the clinical diagnosis prevails. Thus, in most cases, this is the immigrant's first life-time exposure to radiography.

Most industrialised countries use a combination of CXR and TST to screen immigrants originating from high-TB-incidence countries [12–15]. The Israeli TB screening policy in Addis Ababa, Ethiopia includes both of these methods for the detection of LTBI and PTB. The Israeli screening process employs additional measures to support those instruments and to augment the validity of the entire process, such as physical examination and symptom questionnaire for each immigrant. In addition, the follow-up is resumed while the immigrants are housed in the designated absorption centres and are tested for the second-step TST. Medical follow-up is provided by a nurse at these centres during the first few years of acclimatisation in Israel.

HIV tests are performed for the Ethiopian immigrants only after arrival in Israel. Israeli immigration laws are unique, and allow immigrants of Jewish descent to be naturalised in Israel upon arrival, and provided with all social benefits including national health insurance. Therefore, HIV-infected immigrants are entitled to follow-up and therapy when indicated. The right to immigrate to Israel is unrelated to the health status of the immigrants, and there is high social sensitivity in Israel to any bureaucratic barriers for the homecoming of Jews. However, because HIV may stigmatise this *a priori* marginalised population of immigrants, we prefer to perform HIV testing in Israel in a non-coercive manner only after arrival. This way, the immigrants are reassured that no pre-arrival medical condition deprives them of the anticipated homecoming. We do, however, test for TB prior to immigration, as the mycobacterium may infect otherwise healthy individuals during air travel to Israel and immediately thereafter. The results of TB screening performed previously in Ethiopia are compared with the HIV tests conducted in Israel to compose a comprehensive evaluation of each individual.

Finally, isoniazid resistance was diagnosed in less than 5% of the PTB immigrants. Therefore, we assume that the relatively low isoniazid resistance and the relatively low risk for side-effects of the therapy, as well as the high cost-effectiveness of

the current regimen, are superior in comparison to alternative preventive therapy options. Nevertheless, consistent evaluation of drug sensitivity tests is imperative in an ongoing evaluation of this decision.

In conclusion, our study is based on valid material and on actual circumstances, and its outcome can provide some evidence to yield of screening of potential immigrants from Ethiopia, and hopefully from other African countries.

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STATEMENT OF INTEREST

None declared.

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Left ventricular dysfunction in patients with interstitial lung diseases

To the Editors:

The paper by PAPADOPOULOS *et al.* [1] describes the failure of systolic left ventricular (LV) function in patients with idiopathic lung fibrosis (IPF).

Not much is known about LV systolic and diastolic function failure in IPF patients or its influence on rates of survival. In 1998, VIZZA *et al.* [2] examined a large group of patients with

advanced lung diseases and estimated that 6% of them had LV failure, in particular patients with primary pulmonary hypertension and Eisenmenger's syndrome. However, in a patient group with interstitial lung diseases (ILD) the proportion was lower and reached 3.6%.

In 2007, we studied LV systolic function in 18 patients with lung fibrosis and heavy respiratory insufficiency [3]. The patients