

RESEARCH LETTER

Tuberculosis through the rose tinted spectacles of the EBUS endoscopist: be aware of the bias

I read with interest the article on the utility of endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) in tuberculous intrathoracic lymphadenopathy by Navani *et al.*¹

EBUS-TBNA has been validated for the assessment of mediastinal nodes in lung cancer² and to obtain a diagnosis in (presumed) centrally located lung cancer³ or sarcoidosis.⁴ In addition to a recent report,⁵ the study by Navani *et al* adds to the evidence for the use of EBUS-TBNA in cases of presumed tuberculous lymphadenitis. A sensitivity of 94% is reported, which might be too optimistic.

First, patients were selected in a peculiar way. The authors reviewed the files of all EBUS endoscopies and retrospectively selected those cases in which tuberculosis was finally found. Unfortunately, there is no information on how the patients were selected *beforehand*. The reported figure gives an indication of the sensitivity of EBUS in this particular setting; however, it does not give an answer to the more relevant question about the sensitivity of EBUS-TBNA for *all cases* in whom tuberculous lymphadenitis is suspected. There were potentially many patients with tuberculous intrathoracic lymphadenitis who were not sent for EBUS.

Second, the use of assessment tools (ie, EBUS) only in patients having the condition leads to an overestimation of sensitivity. Since there is no remedy for the overestimation in this series, the results should be interpreted with caution.

Finally, three of the five pathology grades are grouped as compatible with tuberculosis. Two of these, epithelioid granulomas without caseation and necrosis are primarily compatible with sarcoidosis and cancer rather than tuberculosis,⁴ despite suggestive symptomatology or an (undefined) response to medication. A more conservative analysis combining strict pathological and microbiological criteria would be informative.

Therefore, it might be appropriate to say that for tuberculous lymphadenitis, the sensitivity of EBUS is at the most 94%. Although I recognise the importance of EBUS, my reflections should serve as a reminder to doctors to exercise caution when their diagnosis of tuberculosis is based on the idea that the sensitivity of EBUS is 94% and that a negative EBUS excludes the disease.

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CORRESPONDENCE

Authors' response

We thank Dr Young for his comments on the recent UKLS position statement.¹ We are aware of the current studies on chronic obstructive pulmonary disease (COPD) and lung cancer. However, there is no validated lung cancer risk model in the UK which currently incorporates dynamic lung volumes that could be used in the UKLS trial. All the recruited individuals will have spirometry at the time that they are recruited into the UKLS trial, thus data will be available for developing the Liverpool Lung Project risk model.^{2,3} We do not wish to focus on COPD risk groups for the pilot UKLS trial.

Smoking is the over-riding risk factor in lung cancer. Our measurements will provide further information concerning the potential for COPD as a useful factor in selecting populations that may benefit from screening. We do not have population-based spirometry in the UK to screen populations and there is an issue over the diagnostic crossover between COPD and asthma.

The search for molecular biomarkers and susceptibility genes, which may be used in early detection programmes, has proved challenging; although there are a number of promising candidates,^{4–7} none, to date, has been validated to a level where they can be used in an early lung cancer clinical trial.

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CT screening for lung cancer

We read with interest the recent opinion piece by Field *et al*¹ outlining plans for a CT screening trial in the United Kingdom (the