

LETTER TO THE EDITOR

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.

Kurt Tournoy

Correspondence to Dr Kurt Tournoy, Ghent University Hospital, Department of Respiratory Medicine, Building 7

K12 IE, De Pintelaan 185, Ghent 9000, Belgium; kurt.tournoy@ugent.be

Competing interests None.

Contributors KT is the sole contributor.

Provenance and peer review Not commissioned; internally peer reviewed.

Accepted 11 October 2011

Thorax 2011; **66**:1. doi:10.1136/thoraxjnl-2011-201149

REFERENCES

1. **Navani N**, Molyneaux PL, Breen RA, *et al*. Utility of endobronchial ultrasound-guided transbronchial needle aspiration in patients with tuberculous intrathoracic lymphadenopathy: a multicentre study. *Thorax* 2011;**66**:889–93.
2. **Gu P**, Zhao YZ, Jiang LY, *et al*. Endobronchial ultrasound-guided transbronchial needle aspiration for staging of lung cancer: a systematic review and meta-analysis. *Eur J Cancer* 2009;**45**: 1389–96.
3. **Tournoy KG**, Rintoul RC, van Meerbeeck JP, *et al*. EBUS-TBNA for the diagnosis of central parenchymal lung lesions not visible at routine bronchoscopy. *Lung Cancer* 2009;**63**:45–9.
4. **Tournoy KG**, Bolly A, Aerts JG, *et al*. The value of endoscopic ultrasound after bronchoscopy to diagnose thoracic sarcoidosis. *Eur Respir J* 2009;**35**: 1329–35.
5. **Hassan T**, McLaughlin AM, O'Connell F, *et al*. EBUS-TBNA performs well in the diagnosis of isolated thoracic tuberculous lymphadenopathy. *Am J Respir Crit Care Med* 2011;**183**:136–7.