Fiberbronchoscopy In Smear-Negative Miliary Tuberculosis

To the Editor:

Pant et al report the successful rapid diagnosis of most patients with smear-negative miliary tuberculosis by fiberbronchoscopy. A recent clinical case raises a number of questions about this report. A 26-week-pregnant, 27-year-old Asian woman presented with a swinging fever, lymphopenia and miliary nodules on chest radiographic film. The Mantoux test was weakly positive to 1 tuberculin unit, but no sputum was produced. Fiberbronchoscopy using small volumes of lignocaine was normal. Washings were smear negative, and three transbronchial biopsy specimens were reported as normal. Washings taken following a repeat fiberbronchoscopy five days later were also smear negative for acid-fast bacilli (AFB), but transbronchial biopsy on this occasion showed granulomas with central necrosis; no AFBs were identified. The patient became afebrile after ten days of treatment with antituberculous chemotherapy.

In the series reported by Pant et al, a rapid diagnosis was possible in 14 of 22 cases, microscopic identification for AFB in seven, and histopathologic appearance alone in the others. However, the diagnosis of tuberculosis on the basis of transbronchial biopsy specimen revealing granulomas without the identification of AFBs is inconclusive in view of the plethora of granulomatous disorders which may affect the lung. Confirmation of the diagnosis of tuberculosis requires identification of AFBs on a liver biopsy, bone marrow biopsy or specimens from a repeat fiberbronchoscopy, or a positive therapeutic trial. These criteria were adopted by both Wilcox et al and Burk et al.

We feel, therefore, that rapid, precise diagnosis of tuberculosis was possible as a result of fiberbronchoscopy in only seven of the 22 cases in the series of Pant et al. In a further seven cases (as in our case), the initial biopsy result was not diagnostic and required confirmation by other means.

A number of further points arise from the report. In drawing up their series, we wonder how many other patients were suspected clinically and radiologically to have miliary tuberculosis but proved to have another condition on further investigation. What other conditions did they have? In those in whom a rapid diagnosis of miliary tuberculosis was not achieved at initial fiberbronchoscopy, was the procedure repeated, and if so, what was the yield? Might radiologic screening increase the diagnostic yield of transbronchial biopsy at initial or repeat bronchoscopy?

Thus, while we agree that fiberbronchoscopy with transbronchial biopsy is a valuable procedure in the rapid diagnosis of suspected miliary tuberculosis, the finding of granulomas without AFBs is not sufficiently specific to confirm the diagnosis of tuberculosis, and further diagnostic procedures are necessary. We accept that, in countries where the prevalence of tuberculosis is high, it is indeed the most probable cause of this clinical, radiologic and histologic appearance, but other diagnostic possibilities remain and increase in relative frequency in countries of low tuberculous prevalence. However, such diagnostic difficulties need not delay the start of empiric treatment (which may in itself aid the diagnosis) in patients whose clinical condition demands it.

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