

Early diagnosis of tuberculous pleural effusion: apart from pleural fluid adenosine deaminase, pleural biopsy still has a role

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To the Editor—I read with interest the paper by Chang et al¹ on the utility of pleural fluid ADA (pADA) for diagnosis of tuberculous pleural effusion (TBPE) in Hong Kong. Their effort in establishing the best cut-off pADA level based on a large local cohort is to be commended.

In their paper, cases with pADA above 100 U/L were excluded in the analysis. Nonetheless, I am now treating a patient with confirmed TBPE in whom pleural fluid was straw-coloured and the pADA level was 127 U/L. Pleural biopsy (PLBx) showed classical granulomatous inflammation and both pleural fluid and sputum were positive on culture for tuberculosis. According to Chang et al's paper,¹ TBPE would have been excluded as a diagnosis based on his suggested pADA value.

This case illustrates well that pADA is just a biochemical marker with limited diagnostic accuracy and there are false-positive/-negative cases. The gold standards for TBPE diagnosis remain granulomatous inflammation on PLBx, and/or the presence of mycobacteria on culture of the pleural fluid and/or pleura. One should never diagnose TBPE based on pADA alone. Pleural biopsy, a simple and safe bedside procedure, has been well reported to be a useful means for early diagnosis of pleural diseases including TBPE.² In Chang et al's cohort,¹ the

diagnostic yield of PLBx was 76.7%. Nonetheless, this investigation was performed in only 53.6% (90/168) of TBPE cases. When PLBx was performed on all patients if feasible, an early definitive diagnosis would have been reached in many more patients with pleural effusion.

Declaration

The author has no conflicts of interest to disclose. The author had full access to the data, contributed to the study, approved the final version for publication, and take responsibility for its accuracy and integrity.

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