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PLEURAL FLUID ADENOSINE DEAMINASE AND INTERFERON-GAMMA AS DIAGNOSTIC TOOLS IN TUBERCULOUS PLEURISY

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Several biological markers have been proposed to improve the efficacy of diagnosing tuberculous pleurisy. The study was undertaken to evaluate the accuracy of pleural fluid ADA activity and IFN-□ concentration in differentiation between tuberculous pleural effusion (TPE) and non-tuberculous pleural effusion (non-TPE). **Material and methods:** 94 patients (50 M and 44 F, mean age 59 □ 18, range 18-95 years) with pleural effusion (PE) were studied. TPE was diagnosed in patients with: 1) positive pleural fluid or pleural biopsy culture, 2) granulomas in the pleural biopsy specimen, after exclusion of other granulomatous diseases. Pleural fluid ADA activity was measured with colorimetric method by Giusti, while IFN-□ concentration was measured with ELISA (R&D Systems, USA). **Results:** TPE was recognized in 28 pts. The non-TPE group consisted of 35 pts with malignant PE, 20 pts with parapneumonic effusion/pleural empyema, 5 with pleural transudate, and 6 with miscellaneous PE. The mean ADA activity and concentration of IFN-□ were significantly higher in TPE than in non-TPE (75.1 □ 39.1 vs. 11.0 □ 16.6 U/l, $p<0.0001$ and 614.1 □ 324.5 vs. 15.1 □ 36.0 pg/ml, $p<0.0001$, respectively). The diagnostic sensitivity and specificity of ADA were 100% and 92.2%, respectively (cut-off value 40 U/l) and were similar to those of IFN-□ (100% and 98.5%, respectively; cut-off value 100 pg/ml). **Conclusions:** The pleural fluid ADA activity and IFN-□ concentration are highly sensitive and specific markers of tuberculous pleurisy.