

Vučić M, Nikolić-Mehanović J.

Activity of adenosine deaminase in pleural effusion and blood serum in differential diagnosis of tuberculosis.

Jugosl Med Biochem 1999; 18(1) 37-41.

#### SUMMARY:

Catalytic concentrations of adenosine deaminase (ADA) have been determined in blood sera of healthy volunteers (40 individuals) and in blood sera and pleural effusions in patients with diagnosed tuberculous pleurisy, neoplastic effusion, effusion of cardiac origin, parapneumonic effusion and pleural affection in abdominal diseases (76 patients). The results clearly demonstrated that serum activity of ADA cannot be used for differential diagnosis of these diseases. However, catalytic concentrations of this enzyme in pleural effusions of tuberculous aetiology were significantly higher than those in pleural effusion of other aetiologies ( $p < 0,0001$ ). ADA activities exceeding 10 IU/L of pleural effusion can be taken as a reliable indicator of tuberculous aetiology of pleural effusions. No statistically significant correlation between catalytic activity of serum and pleural effusion ADA (s-ADA and p-ADA, respectively) both in the group of patients with tuberculosis and in those with effusions of different aetiology, was observed. The ratio of p-ADA and s-ADA in patients with tuberculosis was significantly higher than in the other groups of patients. The results obtained in the present study clearly suggest that determination of catalytic ADA concentration in pleural effusions can serve as a reliable marker for an early diagnosis of tuberculous pleurisy.