

## **THE USEFULNESS OF DIAGNOSTIC ALGORITHMS IN MAKING DIAGNOSIS OF EXUDATIVE TUBERCULOUS PLEURITIS**

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The aim of the study was to find the best diagnostic algorithm for differentiating tuberculous pleurisy.

Methods: The study was prospective, non-randomized. It consisted of 203 inpatients (117 M and 86W with median age 65 years) with pleural fluid of unknown aetiology detected by CXR or CT of the chest. The entire group was divided into 5 subgroups : tuberculous effusion - 44 fluids (21.7%, 33 M and 11W); malignant effusion - 88 fluids (43.3%, 37M and 51W); parapneumonic effusion/empyema - 35 fluids (17.2% , 24M and 11; transudate fluid - 30 fluids (14.8%, 19M and 11W); and 6 other fluids. The following biomarkers were evaluated: ADA, INF- $\gamma$ , IL-2, IL-2sR $\alpha$ , IL-12 p40, IL-18, IL-23, IP-10, Fas-ligand, MDC, TNF- $\alpha$  in four diagnostic schemes. Scheme A - tuberculous fluids were compared with all other fluids; B - tuberculous effusions compared with other exudative fluids; C - tuberculous effusions compared with malignant effusions; D - tuberculous effusions compared with parapneumonic effusions.

Results: In multivariate analyzes two diagnostic algorithms with very high diagnostic efficacy. The first consisted of 4 elements: 2 biomarkers (ADA and IP-10), one laboratory parameter (WBC) and one clinical parameter (body temperature) with sensitivity 97-100% and specificity 96-98%. The second consisted of 6 elements: 1 biomarker (IP-10), 2 laboratory parameters (WBC and the pleural lymphocytosis) and 3 clinical parameters (age, sex, and body temperature) with sensitivity 97-100% and specificity 95-99%).

Conclusions: Both algorithms have proven to be very effective in differentiating tuberculous pleural effusion