Title: Eosinophilic pleural effusions – Is everything clear?

Body: Introduction: Eosinophilic pleural effusion (EPE) for long time was considered a result of benign concomitant diseases with a good prognosis. Blood or air in the pleural fluid (PF) could cause EPE in most cases. In some EPE the aetiology is unknown. Epidemiology is varied from 5-12%. We analysed our patients (pts) with PF and we focused on the group with EPE. Aim: To share our own experience with diagnosis, differential diagnosis and prognosis of EPE. Methods: We analysed 390 pts with a definitely confirmed diagnosis of pleural effusion. The diagnosis was confirmed biochemically, cytological analyses of PF, histologically by blind pleural biopsy or by medical thoracoscopy. Cell count was made routinely. Light's rule was used for the diagnosis of transudates and exudates. EPE was defined when 10% or more eosinophilic leucocytes appeared on a differential cell count. Results: 3 M and 10 F, median age 71 years (51-85 yrs) had EPE (3.33%). From them 3 had lung carcinoma, 1 breast carcinoma, 2 had pneumonia, 2 heart failure, 1 pneumothorax, 1 traumatic PE, 1 pancreatitis as diseases causing EPE and only 1/13 had idiopathic EPE (7.6%), or 0.25% from 390 pts. Median of eosinophils in PE was 25% (from 10% to 88%). Ten of the EPE were exudates and 3 transudates. Conclusions: In our cohort of pts with EPE 30.8% had carcinoma and only 1 was idiopathic. Median age is high. Prognosis is better in 2/3 pts and it was interesting that 3 pts had transudates. Also of interest was the lower incidence of EPE in our cohort in comparison to literature sources. EPEs present the inhomogeneous group of pleural diseases with unclear prognosis.