

Poster presentation

Outcome and non-chemotherapeutic treatment in pleural empyema

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Introduction

The aim with this study was to describe correlations between hypothesised factors (surgery, local thrombolytic, nosocomial infection, late pleural drainage) and unfavourable outcome in pleural empyema.

Methods

Patients with positive culture in pleural fluids were identified in the laboratory database of a department of clinical microbiology in the period 1996–2004. Relevance was evaluated retrospectively by audit of the medical records. Additional patients were identified in the patient administrative system by ICD-10 code DJ86.0 or DJ86.9. Uni- and multivariate statistical analyses were used.

Results

113 patients were diagnosed with pleural empyema in the period. Overall, 30% died, 30% had a insufficient recovery and 40% recovered. 25% (n = 28) of the patients had surgery. 60% (n = 68) of the cases were community acquired, 28% (n = 32) nosocomial and 12% unknown. Unfavourable outcome was higher among the patients who did not have surgery (67% vs. 39%, p = 0.009). Unfavourable outcome was higher among the patients with nosocomial infection (78% vs. 47%, p = 0.003). Outcome did not correlate to local thrombolytic treatment (57% vs. 62%, p = 0,64) or early pleura drainage (<8 days from admission), 56% vs. 61%, p = 0,60.

In multivariate analysis, we found an significantly increased rate of unfavourable outcome in patients treated without surgery (OR 3.4, CI: 1.20–9.8, p = 0.02), but no

correlation to local thrombolysis (OR 1.264, CI: 0.59–2.7, p = 0,55) or pleura drainage > 8 days after admission (OR 0.86, CI: 0.32–2.3, p = 0.76), and a non-significant correlation to nosocomial infection (OR 0.37, CI: 0.13–1.12, p = 0,08).

Conclusion

In univariate analysis, we found that patients with nosocomial infection or treated without surgery had a higher rate of unfavourable outcome. In multivariate analysis, unfavourable outcome was correlated to not being treated with surgery, but non-significantly (p = 0.08) to having nosocomial infection.