# Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine



Poster presentation

**Open Access** 

# Outcome and non-chemotherapeutic treatment in pleural empyema

Jannie Nielsen\*1 and Christian N Meyer<sup>2</sup>

Address: <sup>1</sup>Holbæk Hospital, Holbæk, Denmark and <sup>2</sup>Roskilde Hospital, Roskilde, Denmark

Email: Jannie Nielsen\* - jannienielsen\_dk@hotmail.com

\* Corresponding author

from Danish Society for Emergency Medicine: Research Symposium 2009 Copenhagen, Denmark. 26 April 2009

Published: 20 August 2009

Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine 2009, 17(Suppl 2):P5 doi:10.1186/1757-7241-17-S2-P5

This abstract is available from: http://www.sjtrem.com/content/17/S2/P5

© 2009 Nielsen and Meyer; licensee BioMed Central Ltd.

#### Introduction

The aim with this study was to describe correlations between hypothesised factors (surgery, local thrombolytic, nosocomiel 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. Uniand 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.