



Community acquired pneumonia in asthma: Not a threatening combination



Our prospective data collection described a population of consecutive CAP patients from two Spanish hospitals and analysed the severity and outcomes of CAP in a population also affected by asthma in order to evaluate the need for a specific management and/or treatment in these patients.

Invasive respiratory samples and spirometric measures were not collected as our study was observational and did not intervene in any diagnostic or therapeutic procedure of the attending clinicians. Collected data therefore reflect patients' clinical course and medical management by physicians that were not involved in this research. Pleural puncture and bronchoscopy are not routine tests in CAP patients, hence not available for all patients in our database but they have been included as potential tests for more critical patients (26 asthma-CAP and 580 CAP patients were globally admitted to ICU). Rates of pleural effusion and empyema in asthmatic and in non-asthmatic patients did not differ and we did not focus on the indication for pleural puncture or bronchoscopy in our population. For the same reason spirometric data were not available for all patients. They were collected from individual medical records, being our database designed to investigate CAP patients and not specifically asthmatics. This does not allow patients' stratification according to asthma severity.

Regarding mechanical ventilation we reported in table 5 that only 3 asthmatic patients (2%) were ventilated with invasive mechanical ventilation and 3 (2%) with non-invasive mechanical ventilation. Due to the loss of statistical significance and sample size (6 patients) we did not analyse the clinical indication for mechanical ventilation.

The aetiological diagnosis of 42% is a common finding in CAP series due to several factors: 1) the microbiological tests always have some limitations of sensitivity and specificity; 2) the prompt administration of antibiotics in the Emergency Department (as recommended by current guidelines to improve outcomes) surely reduces the rate of positive tests; 3) not all recommended tests for microbiological diagnosis can always be performed according to clinical patients' conditions (no expectoration, no fever, altered mental status, etc.).

The study performed by To et al. is a retrospective analysis of CAP patients comparing mild to moderate asthma to severe asthma. It is barely evaluable since only the abstract is in English language and the CAP sample collected from 1989 to 2000. Moreover is not clear how authors defined mild, moderate and severe asthma. The nature of our database (about all CAP patients and not specifically asthmatic) does not allow stratification of patients

according to any definition of asthma severity.

The reason for the higher rate of antibiotic therapy in asthmatic patients is discussed in our paper. The most frequent comorbidities in our CAP database were chronic respiratory diseases and COPD were not excluded from the overall population but from the asthmatic group in order to exclude potential confounding factors. *P. aeruginosa* can indicate a rate of chronic infection but patients hospitalized in the previous 2 months were excluded from our CAP database in order to exclude potential hospital acquired infections.

The reported rate of pleural effusion is similar to other CAP series [1–4], while the reported references cited in the letter by Erba-bacan et al. refer to series from South Africa and Hong Kong where microbiology and standards of care could be different from Europe.

References

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