
Diagnostic and therapeutic management of nosocomial pneumonia in surgical patients: results of the Eole study.

Service d'Anesth@esie-R@animation, CHU d'Amiens, Amiens, France.

Abstract

OBJECTIVE: To assess clinical, microbiological, and therapeutic features of nosocomial pneumonias in surgical patients.

DESIGN: Prospective (October 1997 through May 1998), consecutive case series analysis of patients suspected of having pneumonia during the fortnight after a surgical procedure or trauma and receiving antibiotic therapy prescribed by the attending physician for this diagnosis.

SETTING: A total of 230 study centers in teaching (n = 66) and nonteaching hospitals (n = 164) (surgical wards and intensive care units).

PATIENTS: A total of 837 evaluable patients (mean age 61 +/- 18 yrs) including 629 intensive care unit patients.

INTERVENTION: None.

MEASUREMENTS AND MAIN RESULTS: The diagnostic and therapeutic procedures followed were based on guidelines. Antibiotics and any changes of therapy and duration of treatment were decided by the attending physician. The charts were reviewed by a panel of experts that classified the cases according to clinical, radiologic, and microbiological criteria (when available). The efficacy of treatment was evaluated over a 30-day period following the index episode. The patients were classified into three groups: definite pneumonia (n = 261), possible pneumonia (n = 392), or low-probability pneumonia (n = 184). Ventilator-acquired pneumonia was reported in 303 patients. Early onset pneumonia was reported in 512 cases. Microbiological sampling was performed in 718 patients, by bronchoscopy in 367 cases, recovering 450 organisms in 328 patients, including 94 polymicrobial specimens. High proportions of Gram-negative bacteria and staphylococci were cultured, even in early onset pneumonias. Antibiotic therapy was administered for 13 +/- 4 days, using monotherapy in 254 cases. Changes in the initial antibiotic therapy (135 monotherapies) were decided in 517 patients (including clinical failure or persistent infection, n = 171; organisms resistant to initial therapy, n = 177; pulmonary superinfection, n = 68). Death occurred in 180 patients, related to pneumonia in 53 cases.

CONCLUSIONS: Nosocomial pneumonias in surgical patients are characterized by high frequency of early onset pneumonia, high proportion of nosocomial organisms even in these early onset pneumonias, and moderate mortality rate.

PMID:11889312[PubMed - indexed for MEDLINE]