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Infection Control: Clinical epidemiology of nosocomial infections
Acinetobacter baumannii **infections in the intensive care unit: evaluation of clinical characteristics and its effect on mortality**

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Aim: To analyse clinical characteristics of the patients with *A. baumannii* infection in intensive care units (ICU), and to determine factors affecting mortality.

Patients and method: This retrospective study was conducted in ICU of Erciyes University Hospital between January and December 2010. The data were collected from Infection Control Committee. Only first *A. baumannii* infection episode from each patient older than 18 years was included.

Results: In this study, 132 patients were evaluated. Mean age of patients was 56.4±20.1 years, and 61.4% of patients were male. Polymicrobial isolation was detected in clinical samples of 37 (28%) patients. Mean duration of staying in an ICU was 18.0±15.0 days before developing infection. One hundred and twenty (90.9) patients were at least an underlying disease. Most common underlying diseases were cerebrovascular disease, chronic cardiac disease, malignity, acute renal insufficiency, diabetes mellitus and chronic obstructive pulmonary disease. Nosocomial pneumonia (59.8%) was most common infection. The rate of patients developing severe sepsis, septic shock was 44.7% and 31.8% respectively. The mean Charlson score was 3.5±2.4 and APACHE II score at hospitalisation day 20.9±8.5. Incidence of imipenem resistance was 89.3%. Invasive procedures including central venous catheterization (96.2%), mechanical ventilation (95.5%), urinary catheterization (95.5%), and nasogastric intubation (68.9%) were performed in the patients. Rate of the patients given appropriate empirical antibiotherapy was 28.7%, and 64.4% of patients were administered appropriate duration of therapy. Bacteriological cure was detected 78 (59.1%) patients. Eighty five (64.4%) patients died in 30 days. Table 1 shows that results of multivariate analysis about risk factors for mortality.

Table 1: Multivariate analysis of the risk factors for mortality

Variables	RR	CI 95%	p
Age	1,02	1,00-1,05	0,015
Charlson' score	1,43	1,10-1,86	0,008
Imipenem resistance	4,87	1,12-21,24	0,035
Acute renal insufficiency	6,77	1,33-34,23	0,021
Severe sepsis	7,21	1,48-34,98	0,014

Conclusion: Mortality rate is still high in *A. baumannii* infections**.** High mortality rate should be kept in mind in patients who have age ≥45 years, Charlson' score ≥2, severe sepsis, renal insufficiency, imipenem resistant *A. baumannii* infections.