

EPIDEMIOLOGY AND OUTCOME OF MONOMICROBIAL ACINETOMACTER BAUMANNII BACTEREMIA: EMPHASISON ON THE INFLUENCE OF ANTIMICROBIAL THERAPY

N-Y Lee¹, P-L Chen¹, C-M Chang¹, H-C Lee¹, H-I Shih¹, C-J Wu¹, C-C Lee¹, M-J Shih¹, W-C Ko^{1,*}

¹Division of Infectious Diseases, Departments of Internal Medicine, National Cheng Kung University Hospital

BACKGROUND/AIMS: To evaluate the trend in the incidence of *Acinetobacter baumannii* bacteremia, underlying conditions of patients, mortality rate and factors associated with poor outcome.

METHODS: Medical charts of 344 consecutive episodes of *A. baumannii* bacteremia detected between January 1, 2000, and December 31, 2004, were prospectively evaluated. Associated risk factors, treatment and outcomes were recorded.

RESULTS: *A. baumannii* bacteremia represented 3.6% of the total number of bacteremias, 8.6% of nosocomial bacteremias, and 16.1% of nosocomial gram-negative bacteremias. There were 3.7 episodes per 1000 discharges. These numbers were slightly higher than those recorded at our hospital five years earlier. Malignant neoplasm was the most frequent underlying disease (109/344 [47.7%]). Overall mortality was 18.8% (65/344). The presence of fatal underlying disease ($P = .002$), shock ($P = .005$), pneumonia ($P = .009$), multidrug resistance ($P = .001$) and severe sepsis ($P < .001$) were associated with independent poor prognosis, the mortality of the patients with these variables being 23.8%, 33.1%, 34.4%, 27.5% and 22.8%, respectively. The presence of appropriate definitive antimicrobial treatment became the most important independent factor to reduce mortality ($P < .001$). The survival rate was no greater in patients who received two or more antimicrobial agents active in vitro against *A. baumannii* than in those who received only one ($P = .527$).

DISCUSSION/CONCLUSIONS: The rate of *A. baumannii* bacteremia is increasing slightly at our hospital. The presence of severe underlying disease, shock, pneumonia, multidrug resistant and especially severe sepsis are associated with a poor outcome. The administration of an appropriate antimicrobial therapy is essential for a good outcome. Treatment with one active antimicrobial agent seems to be sufficient.

Keyword: Acinetobacter baumannii bacteremia, antimicrobial therapy, outcome