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The clinical profile of patients with acinetobacter baumannii bacteremia at Chris Hani Baragwanath Academic Hospital

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ABSTRACT

Introduction

Within the last twenty years *Acinetobacter baumannii* has emerged as a particularly problematic pathogen, owing largely to its aptitude for acquiring and developing resistance mechanisms. Whilst infections of the lower respiratory tract, urinary tract and soft tissue may occur out of hospital, *A.baumannii* bacteraemia (ABB) is an exclusively nosocomial phenomenon, with most studies highlighting its penchant for the intensive care environment.

Aim

This study aims to determine the proportion, clinical profile and clinical outcome of patients with ABB.

Method

This was a single-centre retrospective review at Chris Hani Baragwanath Academic Hospital (CHBAH) from January 2013 to December 2015. Data was accessed from the National Health Laboratory Service (NHLS). Blood cultures positive for *A.baumannii* were retrieved and patients' files accessed at the medical records department. A data sheet was used to record patient, antibiotic, antibiogram and outcome details. Patients included were 18 years or older, admitted to any ward, and had a blood culture taken during the study period that was positive for *A.baumannii*. Patients excluded were those with polymicrobial positive blood cultures and those with missing or incomplete clinical records.

Results

A total of 104 ABB episodes were yielded from 3418 positive blood cultures. The study sample contained a significant number of episodes from the medical wards (*n*=52; 50%). More episodes were obtained from male patients (*n*=55; 52.9%). The mean age was 47 years (SD 17.29). There were 56 deaths (53.8%). Older age was associated with mortality (p=0.03). Even though human immunodeficiency virus (HIV) was the commonest co-morbidity (*n*=45; 43.3%), diabetes mellitus was the only co-morbidity associated with mortality (p=0.01). Hypo-/hyperthermia was the only clinical sign associated with mortality (p=0.04). Multi-drug resistance was the commonest resistance phenotype (*n*=72; 69.2%), but was not associated with mortality (p=0.17).

Conclusion

ABB is a clinically significant disease in general medical wards in addition to ICU, with a considerable rate of mortality. Diabetes mellitus, older age and hypo-/hyperthermia confer an increased risk for mortality whilst HIV does not.

Key words: *Acinetobacter baumannii,* bacteraemia, resistance phenotype

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