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Original Article

Acinetobacter baumannii Infection in the Neonatal Intensive Care Unit

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Abstract:

Background: To perform a prospective case control study of blood stream infection to determine the infection rate of Acinetobacter baumannii and the risk factors associated with mortality.

Methods: From February 2004 to January 2005, 579 consecutive episodes of blood stream infection were obtained at two neonatal intensive care units Al Nasser and Al Shifa hospitals in Gaza City. Forty (6.9%) isolates of A. baumannii were obtained from the neonates under 28 d. Most of the isolates (92%) were from hospitalized patients in the intensive care units

Results: Community acquired infection was 8%. Sixty three percent of the patients were males. The isolates of A. baumannii were resistant to commonly used antibiotics while being sensitive to meropenem (92.5%), imipenem (90%), chloramphenicol (80%), ciprofloxacin (75%), gentamicin (57.5%), ceftriaxone (50%), amikacin (37.5%), cefuroxime and cefotaxime (35%). Over all crude mortality rate was 20% with much higher crude mortality among patients with nosocomial infection. Based on logistic regression, the following factors were statistically significant: weight < 1500g, age < 7 d, mean of hospitalization equal 20 days, antibiotic use, and mechanical ventilation, when compared to the control group (P < 0.05).

Conclusion: Infection rate of nosocomial blood stream infection was considerable and alarming in neonatal intensive care unit infants and associated with a significant excess length of NICU stay and a significant economic burden.

Keywords:

Nosocomial infection . Multidrug resistance . Neonatal intensive care unit . Acinetobacter baumannii

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