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Poster Session II

Infective endocarditis, bacteraemia and sepsis

MULTI DRUG RESISTANT BACTERIA AND BACTERIAL BLOOD STREAM INFECTION AMONG SPINAL CORD INJURY & DISORDER (SCID) PATIENTS, SEVERITY AND OUTCOME: A 15 YEARS EXPERIENCE

A. Dinh¹, M. SALIBA¹, I. PIERRE¹, P. DENYS¹, E. RONCO¹, C. LAWRENCE¹, B. CLAIR¹, C. PERRONNE¹, L. BERNARD¹

¹Infectious Disease, university hospital of Paris, Paris, France

Objectives: To describe severity and outcome of bacterial blood stream infection (BSI) episodes in patients with spinal cord injury and disorders (SCID) according to the port of entry and to bacterial resistance. Multi Drug Resistant (MDR) bacteria are frequent in this population due to its major exposure to antibiotic treatment.

Methods: We performed a retrospective review of medical charts over a 15 year period (1998- July 10, 2013) of patients with SCID hospitalized in our institution which is a national reference center for SCID. All adult patients with paraplegia or tetraplegia due to SCID, as defined by international classification, and admitted for bacterial BSI during that period were included.

Bacterial BSI was defined as microbiological identification from at least one blood culture and prescription of antibiotic treatment to the patient.

In case of common skin contaminants (e.g.: coagulase negative staphylococci (CoNS), diphtheroids...) at least two different sets of blood cultures drawn from different sites or on different occasions were required.

Results: 318 BSI episodes occurred among 275 SCID patients with median age of 50.8±17.0 ; 129 involved a MDR bacteria. The port of entry was identified in 91% of cases: urinary tract infection (UTI) (34%), pressure sore (25.2%), catheter associated (11.3%), pulmonary infection (8.5%), and bone and joint infections (6%). In 79% of cases, at least one usual risk factor for BSI in SCID patients was present: pressure sore (54.1%), albumin <30g/dl (32.1%), recent invasive procedures (21.1%), diabetes mellitus (14.8%), immunosuppressive therapy (9.4%), underlying malignancies (5.7%) and human immunodeficiency virus (HIV) infection (2.5%).

Enterobacteriaceae were most frequently identified (45 %), followed by *Staphylococcus aureus* (26.6%) and *Pseudomonas aeruginosa* (6.5 %); infection was polymicrobial in 9.1% of episodes.

Upon initial presentation, 43.4 % episodes were considered as severe defined by ICU admission (34.9%), requirements of volume expansion (24.8%), mechanical ventilation (19.8%) or vasopressors (15.7%).

The overall mortality rate was 9.1%. Pulmonary tract infections were associated with a significantly higher mortality (p =0.011).

When a MDR bacteria was involved (40.5%), there was no significant association with initial severity (p=0.947) or mortality (p=0.943).

Conclusions: UTI and decubitus ulcers were the main primary sites of BSI in SCID patients, but their severity and mortality are low, contrary to pulmonary infections which although rare are associated with a higher mortality. MDR bacteria was not a risk factor for severity or mortality in our experience.

Despite the difficult medical management encountered in such population, overall mortality remained lower than the general population, even in critical situations, which maybe due to the young age of patients.