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ePoster Viewing

Antimicrobials: epidemiology of MDR Gram-negatives

Epidemiological features of XDR and PDR *Acinetobacter baumannii* bacteraemia from Greek ICUs: preliminary results from a multicentre registry

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Objectives: To describe epidemiologic trends of intensive care unit (ICU)-acquired bloodstream infections (BSIs) by *Acinetobacter baumannii* (AB), in a geographic area with established high rates of antimicrobial resistance.

Methods: In a prospective registry of 12 Greek ICUs first episodes of BSI were recorded excluding those with isolation of coagulase-negative staphylococci as a single pathogen during the first half of 2012 and 2013. Demographics, comorbidities, microbiology and treatment data were captured in an electronic database. Non-parametric analysis was performed with SPSS13 according to the variable distribution patterns; p values <0.05 were considered as significant.

Results: A total of 64 patients (71.9% male) with BSIs by AB were analyzed, 91.9% of them acquired in the ICU. Median (interquartile range) age was 65 years (53- 72), APACHE II, SOFA and SAPSII scores were 19 (14-26), 8 (6-11) and 45 (38-57) respectively; prior use of antibiotics 13 days (7-24). Reason of ICU admission was surgical (39.7%, 88% of them or emergency), trauma (9.5%) and medical (50.8%). BSIs were classified as primary (38.7%), secondary (33.9%, most frequent source respiratory) or catheter related (CRBSI, 27.4%) and beard a crude ICU mortality of 25%. Attributable mortality was estimated at 9.4%. All but one isolates were extensively drug resistant (XDR), whereas colistin resistance (and pan-drug-resistance/PDR) was detected in 11.11%. In 28% AB was a copathogen, more frequently with a Gram positive coccus (16.1%, mostly *Enterococcus* spp) or another Gram-negative (8.1% mostly *Klebsiella pneumoniae*) without significant difference in survival compared to single AB BSI; CRBSIs with multiple pathogens were less frequent (p 0.036) compared to primary and secondary BSIs. All patients received combinations of colistin with tigecycline and/or a carbapenem, and/or an aminoglycoside as part of the definite antimicrobial regimen. Non-survival was associated with the number of comorbidities (p 0.005), colistin-resistance (p 0.003), age (p 0.003), severity of sepsis during the BSI episode (p 0.012) and higher severity scores SAPSII, SOFA and APACHEII (p 0.002, 0.012 and <0.001 respectively).

Conclusion: In a cohort of Greek ICU patients XDR and PDR AB were often parts of polymicrobial, non-CRBSIs. Crude mortality was associated with severity of illness indices plus colistin-resistance status, underlying the imperative need of new therapeutic approaches against these pathogens.