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ePoster Viewing

Clinical ID: infection in the immunocompromised host and transplant recipients

KPC-Kp management strategy in haematopoietic transplant patients: a single centre analysis

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Introduction. Infections by carbapenemase-producing *Klebsiella pneumoniae* (KPC-Kp) represent a challenging problem in critical patients. Infection and colonization by KPC-Kp may represent a challenging problem in stem cell transplant (SCT) recipients for the management of post-transplant complications and also for the eligibility to transplantation in colonized patients. However, little is known on the overall epidemiological and prognostic impact of these infections in the autologous and allogeneic SCT populations.

Materials and methods. A retrospective analysis since January 2010 in a single italian center was performed to assess the epidemiology and outcome of KPC-Kp infections in autologous and allogeneic SCT. Our group has designed a "Turin strategy" for the management of patients with positive rectal swab for KPC-Kp including: gentamicin decontamination *per os* during initial neutropenia, treatment of febrile neutropenia with empiric intravenous high-dose (HD) tigecycline plus piperacillin/tazobactam and treatment with colistin or gentamicin plus HD tigecyline and meropenem in patients with severe sepsis.

Results. Amongst 381 SCT performed, 49 patients were routinely screened with rectal swabs for KPC-Kp: four were positive. There were 26 MUD, 8 aploidentical and 15 match sibling donor, with a mean duration of neutropenia of 15 (± 7 SD) days. Out of the 49 patients, seven patients (13%) developed a sepsis after a mean of 60 days from SCT and the most frequent pathogens were *E. Coli* (2; 4%) and coagulase negative staphylococci (4;8%). Out of the patients colonized by KPC-Kp, one patient had a bloodstream infection by ESBL producing *K. pneumoniae*. Amongst patients with negative rectal swabs before SCT, two patients became positive after and six patients had a sepsis, of which one was caused by KPC-Kp. In this patient a colistin, HD tigecycline and meropenem treatment was given. Regarding patients with positive rectal swabs before SCT, all patients were treated with oral gentamicin 80 mg q6h at the time of initial neutropenia, three patients were treated with HD tigecycline and piperacillin/tazobactam at time of febrile neutropenia.

Conclusion. In conclusion, the detection of carriers and the early definition of therapeutic strategies are critical aspects of the management of KPC-Kp infections after SCT. Our preliminary data showed that the 'Turin strategy' may be effective in patients undergoing SCT and colonized by KPC-Kp although special efforts in infection control are mandatory.