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ePoster Viewing

Clinical ID: infection in the immunocompromised host and transplant recipients

Bacterial infections in children after liver transplantation

A. Szyszkiewicz¹, K. Dzierzanowska-Fangrat¹, M. Szymczak², K. Semczuk¹, B. Fronc¹, D. Dzierzanowska¹

¹Children's Memorial Health Institute- Department of Clinical Microbiology and Immunology, Warsaw, Poland

²Children's Memorial Health Institute- Department of Surgery and Organ Transplantation, Warsaw, Poland

Objectives. Pediatric patients after liver transplantation (LTx) are at high risk of morbidity and mortality of infectious complications resulting from a combination of a severe underlying disease, an invasive surgical procedure and an immunosuppressive therapy. The aim of this study was to evaluate bacterial infections in pediatric patients who underwent LTx at The Childrens' Memorial Health Institute in Warsaw.

Methods. The study group consisted of 144 patients who underwent LTx between 2009-2012. Patients' age ranged from 4 mo. to 19 years, (median 24 mo.). The follow- up time of post-transplantation observation of each patient was 12 mo. Bacterial infections were diagnosed based on clinical and laboratory manifestations including results of microbiological testing.

Results. During the study period 589 bacterial strains were isolated: 50% (296 isolates) were Gram-positive organisms, 48% (n=284) were Gram-negative and 2% (n=9) were anaerobes. The most frequently isolated pathogens were: coagulase-negative *Staphylococcus* (31%), *Enterococcus spp.* (14%), *E coli* (12%) and *Klebsiella spp.* (8%). A total of 54 % Enterobacteriaceae were ESBL or/and AmpC positive. Among *P. aeruginosa* strains 39% were non-susceptible to carbapenems, and 26% (19) were MDR. The most common types of infections were intraabdominal (other than cholangitis; 36%) and vascular infections (19%). Differences in incidence of particular types of infections depending on time post LTx were observed. Within 0-1 mo. after LTx, the most frequent infections were intraabdominal and vascular infections comprising 41% and 19%, respectively. Between 2 and 6 mo. vascular and intraabdominal infections were responsible for 20% and 15% of all infectious episodes, and after 6 mo. the most common manifestation was cholangitis (35%).

Conclusions. Pediatric patients within the first 6 mo. after LTx are at high risk of vascular and intraabdominal infections caused predominantly by CNS and Enterobacteriaceae, including drug resistant strains.