Abstracts

Infections in Solid Organ Transplant Recipients

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Successful Liver Transplantation despite Evidence of Acute Toxoplasmosis
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Background: Symptomatic reactivation or serologic evidence for primary infection by Toxoplasma gondii in a potential recipient is usually considered as a relative contraindication for elective liver transplantation.

Methods: We present a case of a successful liver transplantation in a female patient with concomitant serologic evidence of acute toxoplasmosis.

Report: A 25 year old woman was hospitalized for life-threatening hepatic failure due to Hepatitis B Virus infection. Liver transplantation had to be performed in extreme emergency because of rapidly worsening hepatic encephalopathy. The recipient’s pre-transplant serology screening revealed the presence of high titers of IgM and IgA antibodies for T. gondii, whereas IgG were undetectable. This positive serology was confirmed by a capture technique as well as by immunofluorescence. Thus the diagnosis of concomitant primary infection by T. gondii was made. Immunosuppression consisted of tacrolimus, mycophenolate mofetil and prednisone. Preemptive therapy with intravenous clindamycin and trimethoprim/sulfamethoxazole was initiated, and switched to per oral pyrimethamine and sulfadiazine after 7 days for a total of six weeks. No adverse events or symptomatic disease occurred, and the patient was finally discharged with a secondary prophylaxis of trimethoprim/sulfamethoxazole scheduled for at least one year. So far she remains asymptomatic six months after transplantation.

Conclusion: This case report suggests that serologic evidence for acute toxoplasmosis should not be considered as a contraindication for liver transplantation under the condition that concomitant antimicrobial treatment is provided.

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Ethiological Agents of Bacteremia in the Early Period Following Liver Transplantation
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Background: Bacteremia is a significant complication and one of the major infections in liver transplantation (LT). This study is an analysis of bacterial infections of blood in early post transplant period.

Materials/Methods: The study comprised the 83 adults patients undergoing liver transplantation (piggy back technique), between September 2001 and October 2004. All the patients were followed prospectively for blood infections from the day of LT and in the first four weeks after operation. The samples of clinical materials, blood and vessels, catheters, were investigated for bacteriological cultures. The microorganisms were cultured and identified according to standard Bacteriological procedures. The susceptibility testing was done by the National Committee for Clinical Laboratory Standards (NCCLS) procedures.

Results: The blood specimens were examined in 59 recipients (71.1%) before operation and in 76 patients (91.6%) during first month after transplantation. In total 249 samples were investigated, 96 of them were positive. The bacterial strains were cultured from 19 recipients before LT and from 48 patients after operation. Out of the bacterial strains, the most common were Gram-
positive cocci – 71 isolates. The coagulase-negative *staphylococci* – 52 isolates (the Methicillin Resistant Coagulase-Negative *Staphylococci* MRCNS strains were detected). The *Enterococcus* spp. occurred in 9 isolates (the High Level Aminoglycoside Resistant HLAR enterococci strains were cultured). The *Enterobacteriaceae* family – 16 isolates and 15 isolates of Gram-negative nonfermenting rods were detected, some of Gram-negative rods were Extended-Spectrum Beta-Lactamases ESBL (+) strains.

**Conclusions:**
1. The domination of Gram-positive cocci in bacteremia is caused by coagulase-negative *staphylococci* (a frequent cause of nosocomial catheter-related bloodstream infections) and may be due to the use of antimicrobial prophylaxis which reduces Gram-negative bacterial strains. 2. The increased rate of isolation of Multi-Drug-Resistant (MDR) bacteria to antimicrobial agents may be due to the frequent use of these agents for prophylaxis of bacterial infections in liver transplant recipients. These MDR bacterial strains caused severe blood infections in patients after LT.

**Fungal Infections of Blood in Patients Undergoing Immunosuppressive Therapy after Solid Organ Transplantation: Epidemiology and Susceptibility of the Fungal Strains**

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**Background:** Fungal infections caused by multidrug resistant strains are increasing clinical problems in immunocompromised patients.

**Objectives:** Estimation of frequency of fungal isolates from specimens obtained from immunocompromised patients hospitalized from February 2005 to February 2006, in the Transplantation Institute of the Medical University of Warsaw, and assessment of their susceptibility to antifungal agents.

**Methods:** Specimens sent for culture comprised of blood samples and vessels catheters. The isolation and identification of cultured fungi was done according to standard mycological procedures and commercially available test ID 32C and API Candida Tests (bioMerieux). Susceptibility of the strains to antifungal agents was made by E-test (AB Biodisk).

**Results:** Fungal cultures were positive in 27 patients. In total 61 strains of yeast-like fungi were isolated. Fifty strains were isolated from blood and 11 strains from catheters. The most commonly isolated species were: *C. parapsilosis* – 44, *C. albicans* – 9, *C. tropicalis* – 3, *C. guilliermondii* – 3, *C. glabrata* – 1 *C. krusei* – 1. All strains were susceptible to amphotericin B and caspofungin, Voriconazole – 98.4%, Itraconazole – 85.25%, Fluconazole – 82%. Non-a*lbicans* *Candida* strains were characterized by lower susceptibility to many commonly used antifungal agents.

**Conclusions:** The most common fungal pathogen isolated from clinical specimens was *C. parapsilosis* – 72.1%. All fungal strains were susceptible to amphotericin B and caspofungin. The emergence of multi-drug resistant non-a*lbicans* *Candida* spp. warrants modification of antifungal therapy and prophylaxis, particularly in immunocompromised patients.