

2.8, $p=0.05$) were independently associated with increased rejection risk. Older age was associated with decreased risk (RR: 0.97, 95% CI 0.95 to 0.99, $p<0.01$).

Conclusion: Among factors associated with rejection, use of prophylactic ganciclovir shows a significant reduction in biopsy proven rejection in OLT. In the current era of organ transplantation with the use of prolonged oral ganciclovir prophylaxis, with or without CMVIG, the incidence of CMV disease, mortality and rejection is dramatically reduced.

Herpes-viral and fungal infections at the diabetic patients

M. S. Dolguikh, O. N. Rzevskaia, O. V. Pozharova,
N. V. Tarabarko
Institute of Transplantology, Moscow, Russia

Objectives: The follow-up some infectious complications at the patients with diabetic nephropathy after renal allotransplantation

Methods: Laboratory diagnosis was performed by PCR-primers to MIE region of CMV with product 500 b.p., to BMRF-1 region of Epstein-Barr virus (EBV) with product 290 b.p. and to adherence factor region of *Candida albicans* with product 500 b.p., to L-1 region of HHV-6 with product 379 b.p.

Results: The blood of 59 patients after renal allotransplantation were assayed. Among them 57 had 1 type diabetes and 2 had II type diabetes. Cytomegalovirus (CMV) DNA was revealed in the blood of 39 (66.1%) patients as single herpes-virus infection at 14 to 15 days after transplantation with minimal clinical symptoms (indisposition, subfebrile temperature, leukopenia, symptoms of rejection), besides 3 patients, who had very acute CMV-pneumonia for a long time. After treatment by ganciclovir the symptoms of diseases disappeared and CMV DNA cleaned. No one of 67 donors had CMV DNA in blood. Among 79 usual renal recipients CMV DNA had 19 (24%) with different clinical symptoms. In the blood of 1 patient DNA of *C. albicans* was detected. The diagnosis was confirmed by bacteriological method. This patient had acute fungal pneumonia. After treatment by amphotericin B symptoms of pneumonitis disappeared and DNA of *C. albicans* cleaned. In the blood of 17 (28.9%) patients EBV DNA was revealed without other infections. This patients had diarrhea, subfebrile temperature and the short pains in the joints. After treatment by acyclovir, zovirax or zaditen the symptoms of diarrhea disappeared and the conditions of patients get well. 20% of healthy donors had EBV DNA in blood. One diabetic patient, who had DNAs of CMV, HHV-6 and EBV, was a very severe one and suffered with acute CMV disease 6 weeks later of the HHV-6 and EBV DNA disappearance.

Conclusion: Diabetic patients have infectious complications much more often and with more severe clinical symptoms as compared to usual patients after renal transplantation. The diseases begin earlier (at 14–15

days), and therefore we recommend to begin the preventive therapy at 7–9 days after transplantation.

Fungal and bacterial pathogens in the oral cavity as potential factors of infections in the allotransplant recipients

P. Fiedor, L. Chomicz,¹ J. Piekarczyk,² B. Starosciak,³
A. Wojtowicz⁴

*Department of General and Transplantation Surgery.

¹Department of General Biology and Parasitology.

²Department of Maxillofacial Surgery. ³Department of Pharmaceutical Microbiology. ⁴Department of Dental Surgery, Medical University of Warsaw, Poland

The aim of the study was to assess the oral cavity status and identify the oral microorganisms in the kidney allograft recipients under chronic immunosuppression (Tx), in the recipients with type I diabetes (Txd) and in the control patients (C) without systemic diseases.

Forty-five patients, 20 to 65 years old, were analysed. Swabs and samples taken randomly from 5 sites of periodontium and dental pockets of each patients were used for microscopical studies and cultured to identify bacteria and fungi.

Among the Tx and Txd patients the oral alterations were observed (mucosal inflammation, gingival hyperplasia, periodontitis).

The microscopical examinations and cultures showed the presence of various species of the fecal bacteria (*Enterococcus faecalis*, *E. faecium*, *Enterobacteriaceae*, *Escherichia coli*) and the fungi (identified as various strains of *Candida albicans*); the oral protozoans: *Trichomonas tenax* and *Entamoeba gingivalis* were also found. Prevalence of the bacteria was higher in the Txd and Tx groups (50% and 43.7%, respectively) than in the control patients (5.8%). The fungi were found in 41.5% of the Txd, 37.5% of Tx and in 17.5% of C patients. Prevalence of the oral protozoans was 8.5% in Txd, 12.5% in Tx and 17.5% in the C patients.

Our studies show that the species composition of the microorganisms is clear changed in the oral cavity of the patients with serious metabolic disabilities and decreased resistance connected with the systemic disease, in comparison to the control patients. High prevalence of the bacterial and fungal opportunistic species in the mouth of the patients under chronic immunosuppression indicates on a major risk for subsequent-local or general-infections that may cause further deterioration of the health in the kidney allograft recipients.

The impact of cytomegalovirus (CMV) infection and disease on rejection episodes in renal allograft recipients¹

Solbjørg Sagedal,¹ Knut P. Nordal,¹ Anders Hartmann,¹
Ståle Sund,⁴ Helge Scott,⁴ Miklos Degré,⁴ Aksel Foss,²
Torbjørn Leivestad,³ Kåre Osnes,⁵ Per Fauchald¹ and
Halvor Rollag⁵