Departments of Medicine[1] and Surgery,[2] Institutes of Immunology,[3] Pathology[4] and Microbiology,[5] Rikshospitalet University Hospital, Oslo, Norway

Background: Cytomegalovirus infection and disease are potential risk factors for acute allograft rejection in renal transplant recipients.
Methods: From October 1994 to July 1997, 477 consecutive renal allograft recipients (397 first transplants and 80 retransplants) were included in the study. Cytomegalovirus infection (cytomegalovirus pp65 antigen in leukocytes) and disease (infection and clinical symptoms or signs of disease) were examined prospectively for 3 months. No cytomegalovirus prophylaxis was given, and cytomegalovirus disease was treated with i.v. ganciclovir. The retransplantation of 4 patients transplanted twice during the study and 22 patients receiving kidneys from HLA-identical siblings were excluded from statistical analysis. Rejections were evaluated clinically (277 (61%)) and 173 (38%) also had a biopsy verified rejection.
Results: Cytomegalovirus infection occurred in 64% of the patients and 24% experienced cytomegalovirus disease. In a multiple time-dependent Cox analysis independent significant predictors for clinical acute rejections were cytomegalovirus infection, RR=1.6 (1.1–2.5, p=0.02), cytomegalovirus disease, RR=2.5 (1.2–5.1, p=0.01). Among 173 patients with biopsy verified rejection 72% of the patients had tubulointerstitial rejection whereas 28% had a vascular rejection. cytomegalovirus disease, but not cytomegalovirus infection was a predictor of tubulointerstitial rejection, RR=3.1 (1.1–9.3, p=0.04).
Conclusion: Cytomegalovirus infection and disease are independent risk factors for clinically acute rejection in kidney risk factor for biopsy verified acute tubulointerstitial rejection in kidney allograft recipients.

Use of intravenous immunoglobulin (IVIg) in addition to antiviral therapy for the treatment of CMV disease in heart transplanted patients with secondary hypogammaglobulinemia

P. Muñoz,[1] J. Bermejo, E. Sarmiento, J. Palomo,[2] J. Yañez,[2] E. Fernández-Cruz and J. Carbone
Clinical Immunology Unit, [1]Microbiology Department and [2]Cardiology Department, University Hospital Gregorio Marañón. Madrid, Spain

Introduction: Cytomegalovirus (CMV) disease occurs frequently after solid organ transplantation and has been associated with decreased patient and allograft survival. IVIg have been used in organ transplantation in combination with antiviral agents to treat established CMV disease. However, only limited data in heart transplanted patients with secondary hypogammaglobulinemia exist.

Patients and Methods: We assessed the overall prevalence of significant hypogammaglobulinemia in the post-transplantation period after heart transplantation. We present data on 5 heart transplanted patients with recurrent CMV infection, four of whom developed gastrointestinal disease. One of the patients associated acute graft rejection. An immunologic evaluation showed hypogammaglobulinemia (mean IgG levels: 323±40 mg/dl (n.v. 700–1600 mg/dl)) in all the patients. The mean absolute number of CD4+ T-cells and B lymphocyte counts were 429±233 and 67±40 cells/mm^3, respectively. IVIg (Flebogamma®) 200–400 mg/kg every 21 days plus antiviral treatment with gancyclovir was administered to the patients. After treatment the patients were followed-up for a mean period of 12 months.

Results: IVIg treatment, in combination with antiviral therapy, proved able to control CMV disease. There was a favorable clinical response and the patients became free of gastrointestinal symptoms. Detection of CMV antigens was negative after treatment.

Conclusions: Even if our survey was limited to only five cases, the results indicated that addition of IVIg to antiviral chemotherapy might improve outcome in heart transplanted patients with CMV disease and hypogammaglobulinaemia.

Keeping previously placed implantable catheters (IC) does not increase the morbidity in patients (pts) undergoing autologous peripheral stem cell transplantation (APSCT)

M. C. Dignani, M. Miceli,[1] A. Vila, M. Juni, D. Intile, P. Desmery, J. Martinez-Rolon
[1]Fundaleu, Buenos Aires, Argentina

Objective: To assess if keeping a previously placed IC is associated with an increase in morbidity in patients undergoing APSCT.

Methods: We reviewed all pts who underwent APSCT with an IC in place from 3/97 to 1/02. We compared these pts with a control group (no IC in place) that was matched by disease, age, and sex.

Results: 43 pts (IC group) were matched with 43 controls (no IC). In both groups the age (mean 40 years old), the sex distribution (58% females), and the duration of neutropenia (mean 8 days) were the same. Underlying malignancies included multiple myeloma (14 and 12), lymphoma (22 and 24), leukemia (3 and 3) and others (4 and 4) in the IC and no IC groups, respectively. Antibacterial and antifungal prophylaxis were used in 18 and 23 pts in the IC group vs 10 and 17 pts in the no IC group (P=NS). The IC were used in 20 of 43 pts within the 60 days of transplantation The endpoints shown in the table were used as markers of morbidity: