

**Complications after pediatric heart transplantation – 9 years single centre experience**

*Kis E., Vilmanyi Cs., Szabo A., Szatmari A., Ablonczy L.*

*Pediatric Cardiac Center - Gottsegen György Hungarian Institute of Cardiology, Budapest, Hungary*

Background: Complications are the major determinants of long term survival after pediatric heart transplantation (HTX). In 2007 a pediatric heart transplant program has been established in Budapest, Hungary. Our aim was to summarize our experience concerning complications after pediatric HTX. Patients and methods: Since 2007 29 children were transplanted at the Pediatric Cardiac Center, Budapest. They were 7.1 (5.7) years old at the time of (HTX). Seven patients required ventricular assist device prior HTX. After induction, initial immunosuppressive therapy was tacrolimus and mycophenolate mofetil. Regular controls were timed every 2-6 weeks, mean follow up was 3.4 (2.1) years.

Results: Major complications were infections, gastrointestinal and hematological diseases. Posttransplant infections included Clostridium difficile-related enteritis in 4 patients, CMV infections (1 lethal pneumonitis, 2 pts with treated hepatitis) in 3 patients, mild, but recurrent upper respiratory tract infections in 4 patients, severe fungal infection (immediately after HTX) in 1 patient, lethal myocarditis in 1 patient. Gastrointestinal complication: 10 of 29 patients had abdominal pain and enteritis. It was due to infective diseases in 4 cases (in 2 patients enteral symptoms persisted even after eradication of C. difficile). One patient has de novo inflammatory bowel disease. In 6 patients GI problems were mycophenolate related, they were converted to everolimus, however in one patient everolimus had to be withdrawn. Haematological complications consisted of drug related leukopenia in 2 cases and autoimmune haemolytic anaemia (AIHA) in 2 patients. One patient with thrombocytopenia associated AIHA was steroid sensitive. The other AIHA patient had severe, steroid resistant haemolysis (AIHA persisted even after rituximab and plasma exchange). One patient was lost due to treatment resistant post transplant lymphoproliferative disease (PTLD). Controlled hypertension was present 11 patients, 6 patients needed treatment for dyslipidaemia.

Conclusion: Our observations underline the importance of infection control in the long term survival after HTX as 50% of posttransplant mortality was due to infective diseases. Drug related diseases are of mild-to-moderate intensity, but treatment may be difficult. Autoimmune diseases are present at around 10%, but due to posttransplant immune dysregulation, effective treatment could be problematic.