

Kidney transplantation is the most appropriate treatment for end-stage kidney failure. The risk of graft failure in retransplanted patients is generally higher than in first-transplant patients due to immunological and non-immunological reasons. An important risk factor to consider for retransplant patients is their sensitization, i.e. the presence of antibodies directed to HLA antigens of previous donor(s). For that reason, a project called Forbidden (Non-acceptable) Antigens was launched by IKEM with the aim of reducing the incidence of acute cellular and antibody-mediated rejection in retransplant patients. Work on the project was carried out between the years 2011-2013. Forbidden antigens were defined as mismatched HLA antigens of previous kidney donor(s) against which patients waiting for retransplantation produced antibodies. The aim of this diploma thesis is to evaluate whether the incidence of rejection is lower in patients with forbidden HLA antigens in comparison with a control cohort, where no forbidden antigens are defined. 234 patients (162 males and 72 females) were included in the study. Almost all tested patients were producing HLA antibodies (90.2%) and forbidden antigens were determined in 71.4% of patients. In a control group of 267 patients waiting for their first transplantation, the production of HLA antibodies was significantly lower (26.6%). 50 patients with forbidden antigens underwent retransplantation. In comparison with a similar cohort of 63 retransplanted patients without forbidden antigens, there was no significant difference in the incidence of cellular and antibody-mediated rejection between both groups.