

PROLONGED LYMPHOPENIA AFTER ANTI-THYMOCYTE GLOBULIN INDUCTION IS NOT ASSOCIATED WITH INCREASED GRAFT SURVIVAL IN PANCREAS TRANSPLANT RECIPIENTS

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INTRODUCTION

Anti-thymocyte globulin (ATG) induction is associated with higher graft survival, as well as freedom from acute cellular rejection (ACR) after pancreas transplantation. ATG may induce prolonged (>30 days) lymphopenia.

PURPOSE

To determine whether prolonged lymphopenia after ATG induction contributes to superior long term results after pancreas transplantation.

METHODS

A total of 35 adult pancreas alone transplants were performed between 1998 and 2006, with anti-thymocyte globulin for induction. Re-transplants, multi-organ recipients and perioperative deaths were excluded (n=7) from the study population. Recipients with an average value of ≤ 300 lymphocytes/mm³ for the first 30 postoperative days comprised the cohort of prolonged lymphopenia, whereas the rest comprised the non-lymphodepleted cohort. Graft survival censored for patient death, patient survival, ACR (incidence/patient), CMV infection and LOS were retrospectively analyzed.

RESULTS

Prolonged lymphopenia was achieved in 50% (n=14). Although there was a trend favoring non-depleted recipients there was no statistically significant difference in the mean actuarial graft survival for the lymphopenic and the non-lymphopenic cohorts (p = 0.572, 95% CI: .156 - 2.787). The incidence of ACR was identical (p = 1.0) between the non-depleted and the depleted group. No CMV infection was diagnosed. LOS was similar between the two groups (p = .635).

CONCLUSIONS

Lymphocyte depletion that persists for more than one postoperative month after induction with ATG is not associated with improved long-term results. Further investigations, including immunophenotyping and functional assays, should confirm or reject the theory of benefit from lymphocyte subpopulations "molding" in pancreas alone transplant recipients.