5

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

D. Vrochides, P. Metrakos, J. Tchervenkov, P. Chaudhury, M. Hassanain, M. Cantarovich, D. Keith, S. Paraskevas

Department of Surgery, Multi-Organ Transplant Program, McGill University, Montreal, Quebec, Canada

INTRODUCTION

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

PURPOSE

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

METHODS

Anti-thymocyte globulin induction was used in 415 primary adult kidney transplants. Recipients with normal graft function comprised group 1 and those with slow or delayed graft function (S/DGF) comprised group 2. Recipients with an average value of ≤200 lymphocytes/mm^3 for the first 30 postoperative days comprised the cohorts of prolonged lymphopenia (group 1a and 2a), whereas the rest comprised the non-lymphodepleted cohorts (group 1b and 2b).

RESULTS

Prolonged lymphopenia was achieved in 53.4% (n=141) and 68.8% (n=104) of recipients with normal (group 1a) and slow/delayed (group 2a) postoperative graft function respectively. For both the normal and the S/DGF groups, there were no differences in mean actuarial graft and patient survival for the lymphopenic and the non-lymphopenic cohorts (Table 1). Incidence of ACR was similar between the non-depleted and the depleted groups. CMV incidence was similar between the two groups.

CONCLUSIONS

Lymphocyte depletion that persists for more than one postoperative month after induction with ATG is not associated with improved long-term results.

Table 1. Mean actuarial graft survival in years (95% CI)

Group 1 (normal function)			Group 2 (S/DGF)		
1a (+LD)	1b (-LD)		2a (+LD)	2b (-LD)	
12.93 (11.90, 13.97)	12.75 (11.43, 14.07)	p = .7690	9.50 (8.14, 10.86)	7.69 (6.30, 9.07)	p = .8288