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Alemtuzumab use in renal transplantation: Single center review of 661 patients

Joseph Brooks, Graham Mitro, Luke Mugge, Michael Rees and **Jorge Ortiz**
University of Toledo, USA

Alemtuzumab (ALE) is a monoclonal antibody that targets the CD52 glycoprotein resulting in lymphocyte depletion. It is an IRB-approved retrospective review to evaluate outcomes with ALE. 181 (27%) cases of rejection occurred in total: 124 ACR, 24 AMR and 33 AMR/ACR. Monocytes were the predominant cell type seen histologically. Males had increased rates of rejection at 1 year but decreased at 5 years (24.0% vs. 15.6%, p=0.015; 23.3% vs. 33.8%, p=0.031, respectively). Retransplantation and high panel reactive antibody (PRA) (>20%) show increased rejection rates at 5 years (32.9% vs. 23.5%; 36.6% vs. 24.9%, respectively, both p=0.045). Elderly recipients experienced a higher rate of delayed graft function (15.1% vs. 8.5%, p=0.039). Males had increased death-censored graft survival (DCGS) at 3 and 5 years (91.6% vs. 85.4%, p=0.046; 86.9% vs. 77.7%, p=0.022, respectively). Recipients with high PRA had reduced DCGS at 3 and 5 years (79.3% vs. 91.3%, p=0.003; 73.2% vs. 85.9%, p=0.013, respectively). There were no differences in graft and patient outcomes between ethnicities. Ten patients (1.5%) developed PTLD. Non-significant findings can be found in Table 1. Recipients with high PRA or retransplantation had higher rates of rejection. We report higher overall rejection rates than previously documented. The frequency of AMR is lower than documented. Our results suggest a reduction in ethnic disparities in outcomes following ALE induction.

joseph.brooks@rockets.utoledo.edu