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Lung alert

A new treatment proposed for lung transplant rejection

Despite intensive immunosuppressant therapy following lung transplantation, acute rejection occurs in over 50% of recipients within the first 6 months. Bronchiolitis obliterans syndrome (BOS) is related to acute rejection and independently contributes to mortality. It is thought that T cell depleting agents might reduce the incidence of these complications. Alemtuzumab is a humanised monoclonal antibody to the CD52 antigen which is expressed on T cells, B cells, monocytes, macrophages and platelets and causes lymphocyte depletion. The authors studied the effects of this agent on 12 patients with refractory acute rejection (RAR; ie, with biopsy proven rejection over at least 4 weeks) and 10 patients with BOS.

All patients had failed to respond to corticosteroids and antithymocyte globulin (ATG). The efficacy of alemtuzumab for the treatment of RAR was compared with ATG using the rejection grades on consecutive biopsies immediately before and after treatment. In patients with RAR, a significant and sustained reduction was observed in A and B grade biopsy rejection after alemtuzumab ($p<0.001$). Treatment resulted in a significant reduction in the severity of RAR immediately, while there was no change in the mean severity after treatment with ATG. There was no significant change in mean forced expiratory volume in 1 s in BOS after treatment, but there was an improvement in the BOS scores. One-year graft survival for RAR after alemtuzumab treatment was 86%. Survival with BOS at 1 and 2 years was 69%.

Alemtuzumab is potentially useful in the treatment of RAR or BOS in lung transplant recipients who have failed prior conventional therapy, but this study is limited by the lack of a control arm. The authors point out that a randomised controlled study is required before recommending this treatment over existing therapies.

► Reams BD, Musselwhite LW, Zaas DW, *et al*. Alemtuzumab in the treatment of refractory acute rejection and bronchiolitis obliterans syndrome after human lung transplantation. *Am J Transplant* 2007;**7**:2802–8

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