

Immunosuppression

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Immunosuppression is split into induction (immediate post transplant) and maintenance (long term) therapy. Induction therapies include non-depleting antilymphocyte antibodies that cause T-cell inactivation, such as basiliximab, which blocks the interleukin-2 receptor and inhibits T-cell expansion. T-cell-depleting antibodies have largely replaced non-depleting therapies as a more effective way of suppressing lymphocytes. These include polyclonal ATG and the monoclonal antibody alemtuzumab (Sanofi). The use of T-cell-depleting antibody therapy has reduced rejection levels but without a corresponding effect on graft or patient survival. Alemtuzumab is easier to administer and is associated with lower rates of viral infection than ATG, so is preferred by some transplant units. Maintenance immunosuppression has evolved from triple therapy with ciclosporin, azathioprine and steroid to current practice with tacrolimus and mycophenolate mofetil. Steroid-free regimes are aimed at minimising insulin resistance and wound infection and are favoured by some centres. Comparison of ciclosporin with tacrolimus in combination with mycophenolate mofetil (MMF) and steroid, plus induction with ATG, in the EUROSPK 001 trial showed a reduction in the rates of severe rejection, with lower rates of pancreas graft loss at 3 years in the tacrolimus combination group. Summary box 90.4 Immunosuppression and follow-up

Pancreas rejection is challenging to diagnose and once glucose levels rise it is usually too late to reverse. Outcomes from SPK and LD kidney transplant are similar and both options offer a survival advantage compared with deceased donor transplant. Induction therapy with lymphocyte-depleting antibodies (alemtuzumab, ATG) has reduced rejection rates without changing graft and patient survival.

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