European Society of Organ Transplantation
Glasgow, 4–7 September

Promising belatacept outcomes continue at 3 years

Compared with ciclosporin, belatacept results in superior renal function and comparable patient and graft survival in de novo kidney transplant recipients, according to 3-year outcomes from the phase III BENEFIT study.

BENEFIT included 666 patients receiving either standard criteria (after brain death) or living donor kidneys. Patients were randomized to a more intensive or less intensive belatacept regimen or to the calcineurin inhibitor ciclosporin. Calcineurin inhibitors are the current mainstay of solid organ transplantation, but can adversely affect renal function and are associated with cardiovascular and metabolic side effects.

Mean calculated glomerular filtration rate at the end of 3 years was higher in the belatacept groups than in ciclosporin-treated patients (~21 ml/min, rising from ~15 ml/min at year 1). While mean calculated glomerular filtration rate improved with belatacept, it fell by a mean of 2.0 ml/min/year in the ciclosporin group. By year 3, fewer belatacept-treated patients had calculated glomerular filtration rate <30 ml/min (chronic kidney disease stages 4–5): 9–10% *vs* 20% for ciclosporin.

Speaking in Glasgow, BENEFIT lead investigator Dr Flavio Vincenti, Professor of the Division of Nephrology, University of California, San Francisco, USA, commented: 'Preserving renal allograft function is critical to maximizing graft and patient survival. Modelling data [based on BENEFIT] project that graft half-life improves by 2 years in patients treated with less intensive belatacept compared to ciclosporin.'

There were no significant differences in patient or graft survival (92% more intensive, 92% less intensive, ciclosporin 89%). There was a higher risk of early acute rejection with belatacept, but this did not increase the rate of graft loss in the intention-to-treat population.

Belatacept is a selective T-cell co-stimulation blocker, given as an intravenous infusion every 4 weeks.

Sue Lyon

Success for altruistic living kidney donor scheme

More patients are benefiting from a living donor kidney transplant since the introduction of non-directed altruistic donation to the UK. This form of donation, in which donor and recipient have no previous relationship or contact, was made possible by the Human Tissue Act 2006.

By January 2011, there had been 60 altruistic living kidney donations, accounting for 3% of living donor kidney transplants in 2010. Mean donor age was 53 years (range 24–82 years) and 60% were male. Kidneys were allocated to patients waiting about 3 years for transplantation. At 90% (95% confidence interval 75–95%), 1-year graft survival was comparable with that for other living donor transplants.

Presenting these data in Glasgow, Lisa Burnapp, NHS Blood and Transplant, commented: 'The scheme in the UK has been successful. In comparison with global experience it has exceeded our expectations and it is growing. It contributes a small, but significant, amount of overall living donor kidney transplant activity. It also provides us with an enormous potential to increase the sharing scheme and the donor pool, and therefore increase the opportunity for our patients who are most difficult to transplant.'

Under the UK scheme, potential altruistic donors are evaluated according to national clinical guidelines, which include mandatory mental health assessment. Once fully assessed, suitable donors are registered with NHS Blood and Transplant, which identifies a suitable recipient.

Sue Lyon

Sirolimus reduces risk of skin cancer after kidney transplant

Switching kidney transplant patients to sirolimus-based maintenance immunosuppression delays the time to recurrent cutaneous squamous cell carcinoma. This finding comes from the multicentre, prospective, open-label, randomized, controlled RESCUE study reported in Glasgow.

The study randomized 154 UK and Dutch kidney transplant patients with at least one biopsy-proven squamous cell carcinoma and stable renal function to conversion to sirolimus or continuation of their calcineurin inhibitor-based maintenance immunosuppression. Patients were screened for squamous cell carcinoma every 3 months by a dermatologist.

At 2 years, the relative risk of recurrent squamous cell carcinoma was reduced by a significant 41% in patients converted to sirolimus compared to patients who remained on their original immunosuppressive regimen (95% confidence interval 0.36–0.98; P=0.04). Time to recurrent skin cancer was also significantly delayed (P=0.039). There were no differences between the study arms in renal function or rates of proteinuria. However, 39% of patients in the group switched to sirolimus discontinued treatment because of side effects.

Professor Alan Jardine from Glasgow, Congress Co-Chair, commented: 'Because of the shortage of organs, we are using more marginal donors, and we now have older recipients with comorbidities.... The recognition that cancer and other comorbidities are more important than we thought has led to clinical trials like RESCUE.'

Sue Lyon