TRANSPLANTATION OPTIMIZING ECD GRAFT OUTCOMES

A strategy of allocating extended criteria donor (ECD) kidneys only to recipients without anti-HLA donor-specific antibodies (DSAs) and reducing cold ischaemia time to <12 h could significantly improve the long-term outcomes of ECD transplantation, according to new findings from Alexandre Loupy and colleagues. They state that these data support a need for ECD-specific transplant allocation policies to enable optimal use of this valuable resource.

In their prospective study, which included 6,891 extensively phenotyped patients, Loupy *et al.* found that recipients of ECD kidneys had significantly lower allograft survival after 7 years than did recipients of standard criteria donor (SCD) kidneys. Moreover, among ECD recipients, circulating DSAs at the time of transplantation and cold ischaemia time >12 h were strongly and independently associated with a significantly increased risk of allograft loss. The researchers calculated that a strategy of avoiding DSAs and reducing cold ischaemia time to <12 h would have saved 544.6 ECD allograft life years during the study period and resulted in an ECD allograft survival rate comparable to that of SCD transplants.

“Our data suggest that ECD kidneys might be particularly vulnerable to the effects of DSA injury and cold ischaemia,” says Loupy. “Interestingly, preimplantation biopsy assessments did not have independent predictive ability for long-term ECD allograft outcomes when baseline donor characteristics, cold ischaemia time and circulating DSAs were considered.” Given this finding and the fact that preimplantation biopsies increase cold ischaemia time, he suggests that the current practice of discarding ECD kidneys based on the results of these biopsies might not be the optimal approach for decision making in this setting.

In their clinical practice, the researchers now plan to allocate ECD kidneys exclusively to recipients without circulating anti-HLA DSAs and to enhance indications for perfusion machines in ECD transplantation to reduce cold ischaemia time. They also aim to balance the indications for immunosuppression minimization strategies in ECD recipients with the risk of developing post-transplant DSAs to avoid a cumulative burden of injuries in already vulnerable allografts.

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Original article Aubert, O. *et al.* Long term outcomes of transplantation using kidneys from expanded criteria donors: prospective, population based cohort study. *BMJ* 351, h3557 (2015)