

G10 Post transplant lymphoproliferative disorder: Case report and review of susceptibility to EBV in the Scottish adult renal transplant pool

Introduction

Post transplant lymphoproliferative disorder (PTLD) is a rare and important complication of the immunosuppressive treatment that is required by renal transplant recipients.

The development of Epstein Barr Virus (EBV) associated PTLD in a patient with a renal transplant prompted us to survey all active patients on the waiting list in the Scottish Adult Renal Transplant Pool for susceptibility to EBV.

This was a collaborative project between the Scottish Renal Registry and virologists in Glasgow, Aberdeen, Dundee and Inverness.

Methods

We obtained a list of patients who were active on the renal transplant waiting list in July 2007 and then tested their most recent stored blood for EBV and cytomegalovirus (CMV) IgG Viral Capsid Antigen (VCA) if not already known.

Results

Results were available for 492 (91.3%) of 539 patients who were active on the transplant list. Nine (1.8%) of 492 patients were EBV IgG VCA negative and one was equivocal. There were 7 men and 2 women in the EBV negative group. Their median age was 43 (range 20-67) years. Seven (78%) of the 9 patients who were EBV negative were also CMV negative.

Discussion

Our review of the literature showed that PTLD affects 1-2% of patients following renal transplantation. The main risk factors for the disease are EBV seronegativity and the degree of immunosuppression. The incidence of PTLD has increased following the introduction of ciclosporine, tacrolimus and newer immunosuppressive agents. The risk of PTLD is also 4 fold greater in EBV negative recipients if they are also CMV negative. Outcome studies suggest a 5 year patient survival of only 51.4% from time of transplantation in renal patients who develop PTLD. Serial EBV monitoring, tailoring of immunosuppression and anti-viral prophylaxis have all been reported to reduce the incidence of PTLD, though none have been tested by randomised trials. Several studies have shown a role for ganciclovir in antiviral prophylaxis for EBV negative transplant recipients. A vaccine using gp350 EBV envelope protein is currently in phase I/II clinical trials in the UK.

Conclusion

Routine screening of potential renal transplant recipients for EBV identifies those at increased risk of PTLD.