

Effect Of Everolimus Rescue Therapy For Acute Cellular Rejection Following Living Donor Liver Transplantation: Report Of One Case

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Background : Acute cellular rejection (ACR) after living donor liver transplantation (LDLT) is often curable with steroid pulse therapy, but a few patients show steroid-resistant ACR, which is difficult to control.

Methods : The patient was a 61-year-old male who was admitted due to chronic HBV decompensated liver cirrhosis with hepatocellular carcinoma. ABO-incompatible LDLT operation using a modified right liver graft from son was performed. The graft-recipient weight ratio was 1.21. The patient recovered uneventfully with immunosuppression using tacrolimus with mycophenolate.

Results : However, 11 months later, after LDLT, the liver enzyme levels began to increase. The first liver biopsy showed mild ACR with a rejection activity index (RAI) score of 4. At that time, steroid pulse therapy was performed, and the liver enzyme was recovered. But one month later, the liver enzyme levels increased further. The second liver biopsy taken at POD 40 showed moderate ACR with RAI score of 7. At this time, everolimus was administered, and soon after that, liver enzyme levels had gradually improved even after stopping the steroid administration. Currently, the patient has been doing well for five months to date without any abnormal findings. The maintenance target trough concentrations were tacrolimus 4–6 ng/ml and everolimus 4–6 ng/ml. Our case demonstrated the effect of rescue therapy using everolimus for ACR following LDLT.

Conclusions : Further studies are needed to assess the role of everolimus in pediatric liver transplant recipients suffering from ACR.

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