Hepatic Tolerance after Liver Transplantation in Occult Hepatitis B Patient

Sir,

Great achievements have been witnessed in liver transplantation (LTx), considerably improved survival rates. However, LTx faces challenges such as organ shortage and immunosuppression complications. LTx is indicated in irreversible acute liver failure and end-stage liver disease, only when the expected survival after LTx is longer with a better quality of life.

Immunological tolerance is defined as maintaining normal allograft function and normal immunological response in the absence of immunosuppression. Tolerance mechanisms are not well understood; NK cell activity or T-regulatory cells seem to play an important role in this phenomenon.

A 62-year diabetic Kuwaiti man presented with yellowish discoloration of sclera with dark urine and lower limb edema. Examination showed jaundice, mild ankles edema, palpable liver and dull Traub's area. Abdominal ultrasound showed cirrhotic liver, splenomegaly and ascites. Laboratory tests disclosed mild thrombocytopenia, impaired liver tests (elevated ALT 70IU/L, hyperbilirubinemia 4mg/dl, serum albumin 2.8g/dl). Workup for identification of the etiology of cirrhosis was unremarkable. Therefore, the patient was considered to have cryptogenic cirrhosis.

The patient had a successful LTx in USA from a cadaveric donor in 2006. The patient's explanted liver was found to have positive HbsAg, changing our diagnosis to occult Hepatitis B virus (HBV) infection. Postoperative period passed safely without complications. He was prescribed Prednisolone and Tacrolimus as immunosuppressants with hepatitis B immunoglobulins and lamivudine for HBV with anti-diabetic therapy. Prednisolone was stopped one year after LTx.

During five years following LTx, the patient acquired CMV hepatitis twice and tuberculous peritonitis once. Both were treated successfully. In late 2010, despite regular Hepatology OPD visits, the patient abruptly stopped Tacrolimus because he thought that his condition is stable. Surprisingly, he looked well and asymptomatic. Afterwards, in the following OPD visits, his liver profile was normal and Tacrolimus level in blood was repeatedly zero till now, indicating a state of immune tolerance.

Complete immunosuppression withdrawal is possible in highly selected liver recipients while gradual withdrawal is mandatory to prevent graft rejection. This surprisingly did not happen after sudden stoppage of immunosuppression by this patient. Sudden stoppage of immunosuppression is a risky decision. There are no similar reported cases of sudden stoppage in literature. The overall prognosis of such cases is not clearly discussed. We need more information to identify better guidelines for the decision of complete weaning of immunosuppression without causing complications or rejection.

REFERENCES


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