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**Liver transplant in a receptor with ABO incompatibility: a viable option**

Alfredo Vivas López, Iago Justo Alonso, Carmelo Loinaz Segurola.

General surgery Unit. "12 de Octubre" University hospital. Madrid. Spain.

Correspondence author: Alfredo Vivas López. E-mail: alfredovivas7@gmail.com

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*Dear Editor,*

We present the case of a 41 year old male with type A blood group and a diagnosis of fulminant liver failure of unknown cause who was admitted to the ICU with severe coagulopathy (INR 6), hyperammonemia (250 umol/l) and grade IV encephalopathy (4 King's criteria and both Clichy's criteria (1) ). He also had GCS 8/15 despite TDE-MARS, dialysis and ventilatory support via endotracheal tube due to encephalopathy. He was listed as a status 0 for liver transplant. In the absence of a compatible donor, the patient received an ABO incompatible liver transplant (LT), group O, using the piggy back technique, without any complications. He required transfusion of 5 units of plasma but did not require blood transfusion.

Induction therapy was administered with Rituximab, followed by triple-therapy immunosupression (prednisone, tacrolimus and mycophenolate), as well as Basiliximab boluses. Anti-A antibodies were serially measured, and he had plasmapheresis or immunoglobuline perfusion on alternating days. There was clinical evidence of humoral rejection despite a non-specific liver biopsy, for which he was treated with three boluses of 1g of steroids. His liver profile and coagulopathy improved slowly and he fully recovered from a neurological standpoint. He was discharged to a regular ward bed and later on, home.

## DISCUSSION

ABO incompatible LT (ABOi LT) with standard immunotherapy has traditionally been a relative contraindication for LT due to the high rate of humoral response and complications, leading to graft loss (2). However, in view of organ shortage, several immunosuppressive regimens that reduce anti-A/B antibodies (3) exist, allowing for good results after live-donor ABOi LT. There is scant evidence for this technique in brain-dead donors, let alone in fulminant liver failure (4). There are some successful cases, such as the one here presented, but larger studies are needed to demonstrate the long-term viability of these organs.

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