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LETTER TO THE EDITORS

ABO incompatible kidney transplantation from an anti-hepatitis C virus antibody-positive RNA-negative donor into an anti-hepatitis C virus antibody-negative recipient

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Dear Sirs,

At the time of severe shortage of deceased donors, continuous efforts are needed to avoid discarding potential living donors. Anti-hepatitis C virus (HCV)-positive donors are not considered suitable candidates for living kidney donation [1]. However, little is known regarding outcomes of such a procedure. Watanabe *et al.*[2] reported successful living kidney transplantation from an anti-HCV antibody-positive-HCV RNA-negative donor into an anti-HCV antibody-negative recipient. Donor and recipient were one HLA identical haplotype, ABO identical and immunosuppression was low. At 24 months post-transplant, the recipient was free of liver disease with negative HCV RNA. Increased mortality risk has only been studied among recipients of anti-HCV antibody-positive kidneys retrieved from deceased donors [3].

A 66-year-old male, blood type O, had been on dialysis since 2007 for cholesterol emboli nephropathy. Evaluation of his 62-year-old wife, blood type A, showed positive anti-HCV antibodies in serum (cutoff index 4.7 > 1.0; enzyme immunoassay), HCV RNA detection by RT-PCR inferior to 15 UI/ml (undetectable defined as < 15 UI/ml), normal serum liver enzymes, and Fibroscan. A multidisciplinary round was agreed on the transplantation, and informed consent was obtained from both the donor and the recipient.

Immunosuppression consisted of 375 mg/m^2 rituximab 4 weeks before the transplantation, tacrolimus, mycophenolate mofetil and prednisolone starting 1 week preoperatively, and basiliximab induction. As anti-A antibodies were below 1:8, specific immunoadsorption was not required. The transplantation was successful with a serum creatinine level of 86 μmol/L at discharge.

At follow-up, *Norovirus* enteritis was diagnosed at day 21 and asymptomatic cytomegalovirus reactivation at day 30. One year post-transplant, the recipient's liver function tests remained normal, anti-HCV antibodies were negative, and HCV RNA was undetectable. A liver biopsy was not deemed indicated. Protocol kidney biopsies performed at 3 and 12 months showed no rejection.

To our knowledge, we report the first ABO incompatible kidney transplantation from an anti-HCV antibody- positive-HCV RNA-negative donor into an anti-HCV antibody-negative recipient. Even with high immunosuppression level, our recipient was free of liver disease and HCV acute infection at one year follow-up.

Presence of serum HCV RNA seems to better predict the risk of HCV transmission by kidney transplantation [4]. It was however not used in initial studies evaluating the risk associated with using HCV-positive kidneys in organ transplantation [3]. Potential donors who had HCV exposure without HCV infection might not transmit the virus.

We advocate the fact that anti-HCV antibody-positive-RNA-negative people, whether spontaneously or after antiviral therapy, deserve consideration for living kidney donation. Outcomes of patients receiving HCV-positive kidneys versus patients remaining on the transplant waiting list should be studied, with comprehensive analyses of competing risks [1].

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Conflicts of interest

The authors of this manuscript have no conflicts of interest to disclose as described by the *Transplant International* journal.

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