

that a triple (not double) regimen was used, for 3 weeks. Sawinski et al.<sup>5</sup> report a patient, black race, who achieved negative viral load after 29 days of treatment of ledispavir and sofosbuvir. This is, to date, the shortest response ever reported with these two agents. Meissner et al.<sup>8</sup> report a case of successful treatment with sofosbuvir and ribavirin for 27 days. More experience is needed on the treatment of chronic hepatitis C in kidney transplant patients. The opportunity of using shorter treatment times, in an effective and more tolerable way, will be a great driver for investment and research in this area.

### Conflicts of interest

None.

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## Transplantation of hepatitis C infected kidneys into uninfected recipients. Why not?☆

### Trasplantar receptores hepatitis C negativos con riñones de donantes seropositivos. ¿Por qué no?

The enemy to beat is the hepatitis C virus (HCV), a RNA virus of 30–38 nm in size with icosahedral coat. It is a Hepacivirus of the Flaviviridae family, which has 7 genotypes.<sup>1</sup> Its transmission is parenteral, therefore its transmission through transplanted organs has been well documented and it causes acute and chronic hepatitis.<sup>2</sup> Given this risk, transplant from donors with antibodies against HCV has been totally contraindicated in noninfected recipients. It is estimated that more than 500 high quality kidney grafts are discarded annu-

ally in the USA for this reason.<sup>3</sup> In 2016 we did not transplanted 15 kidneys for this reason.<sup>4</sup> A number of organs could be transplanted to recipients infected with HCV.<sup>5</sup> The efficacy of direct-acting antivirals eliminated HCV patients from the waiting lists<sup>6</sup> making possible the use these organs, in a society clearly need them.<sup>4</sup>

At present we have tools to change this panorama that have been clearly stated in the Hepatitis C Consensus Conference of the American Society of Transplantation.<sup>7</sup>

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**Table 1 – Action protocol.****Donor to include:**

Carriers of HCV antibodies  
 No drug addiction or institutionalization  
 Rapid assessment of viral load  
 Absent viral load: acting group 1  
 Viral load present: action group 2

**Recipients to include:**

Individualization  
 Personal interview  
 Signing of an informed consent

**Action to follow:**

Action 1: considered non-infective  
 Standard renal TX  
 Biweekly viral load quantification/3 months  
 Positive  
 Glecaprevir 300 mg  
 Pibrentasvir 120 mg/12 weeks  
 Negative: no treatment

**Action 2: considered infective**

Pre-tx and post-tx  
 or Glecaprevir 300 mg  
 or Pibrentasvir 120 mg/12 weeks

The risk of HCV transmission must be defined; there is a clear distinction between donor carrying antibodies, not necessarily infectious, and the patient with viraemia that is infective. To carry out this separation, we use the Xpert<sup>®</sup> HCV Viral Load test with the Cepheid GeneXpert<sup>®</sup> system (distributed by Werfen), available in our hospital, that quantifies the viral load in 1 h which allows the quick identification of the infective donor.

The efficacy, safety and tolerability of direct antivirals make feasible the transplantation of viraemic donors in seronegative recipients. Even more now with the current commercialization of the compounds glecaprevir and pibrentasvir effective against all genotypes, so there is no need to identify the genotype of the donor and are not contraindicated in renal failure, which allows its use in the peritransplant period.<sup>8</sup>

Having these tools and the successful experiences by Durand et al.<sup>9</sup> and Goldberg et al.<sup>10</sup> this year, we requested an ethical evaluation to implement an action protocol (Table 1) to the bioethics committee of our hospital, which gave its approval on July 18, 2017 and stressed the importance of explaining to the recipient the procedure for the subsequent signing of an informed consent.

In the application of the protocol of action (Table 1), we transplanted 2 seronegative male HCV recipients of 45 and 58 years with grafts from a 40-year-old female donor and a 57-year-old male both seropositive, but with negative viral load, for what we apply the action 1. The patients today are carriers of a functioning graft and the viral load in them has been repeatedly negative.

Our initial experience, endorsed by other teams, should encourage the extensive, albeit meticulous, use of this type of donors and lead us to the conclusion that HCV, the enemy to beat, is very likely beaten.

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