HIV-positive Donor to Positive Recipient Liver Transplantation: A Nationwide Survey

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Background

• Liver transplantation (LT) using HIV- organs in HIV+ recipients has good outcomes\(^1\).
• HIV+ donor organs (mostly kidney) can now be transplanted into HIV+ recipients (HIV D+/R+) with end-stage organ disease in several countries\(^1\).
• Spain has one of the biggest cohort of LT in HIV-infected patients and the world’s highest donor rate, but using organs from HIV-infected donors is forbidden by law since 1987.

Objectives

• To know the opinion of liver transplant (LT) teams on this new strategy and their attitude toward HIV D+/R+ LT throughout a nationwide survey.

Results: Geographic Distribution of the 24 Spanish Centers Participating in HIV D+/R+ Liver Transplantation Survey

Andalusia: 4
Madrid: 4
Valencia: 1
Catalonia: 3
Canary Islands: 1
Aragon: 1
Basque Country: 1
Galicia: 2
Cantabria: 1
Navarra: 1
Asturias: 1
Castilla-León: 1
Extremadura: 1
Canary Islands: 1
Murcia: 1
Alicante: 1
Valencia: 1
Results: Geographic Distribution of the 24 Spanish Centers Participating in HIV D+/R+ Liver Transplantation Survey

- At least one member of the 24 LT teams (100%) answered the questionnaire.
- The rate of specialists responding was 68/96 (71%)
  → ID, 75%; HEP, 92%; SURG, 58%; CT, 58%

- Age (mean, SD) = 54 (8) years.
- Gender, males 50 (74%).
- Time working in transplantation and/or donation was 19 (8.5) years.
### Results: According to the Specialty (I)

<table>
<thead>
<tr>
<th></th>
<th>HIV/ID N=18</th>
<th>HEP N=22</th>
<th>SURG N=14</th>
<th>TC N=14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deceased donor*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- VS on ART**</td>
<td>9.5 (8,10)</td>
<td>7.5 (6,8)</td>
<td>10 (5,10)</td>
<td>9.5 (3,10)</td>
</tr>
<tr>
<td>- No VS off ART</td>
<td>2.5 (0,7)</td>
<td>2 (0,5)</td>
<td>1 (0,2)</td>
<td>3 (0,5)</td>
</tr>
<tr>
<td>- HIV diagnosis at transplant evaluation</td>
<td>3 (0,5)</td>
<td>1.5 (0,4)</td>
<td>0 (0,2)</td>
<td>3.5 (0,4)</td>
</tr>
<tr>
<td>- High risk donor, HIV-</td>
<td>9 (7,10)</td>
<td>8 (6,9)</td>
<td>8 (5,810)</td>
<td>9 (8,10)</td>
</tr>
<tr>
<td>- Serodiscordant HIV-donor but HIV+ couple</td>
<td>9 (7,10)</td>
<td>9 (8,9)</td>
<td>8 (6,10)</td>
<td>8.5 (1,10)</td>
</tr>
</tbody>
</table>

VS = HIV virologically suppression; ART = Antiretroviral therapy; HIV/ID: HIV/infectious diseases; HEP: hepatology; SURG: liver surgery; TC: transplant coordination teams. 0 = Fully disagree; 10 = Fully agree. * Median (IQR) ** P value: 0.044.
### Results: According to the Specialty (II)

<table>
<thead>
<tr>
<th></th>
<th>HIV/ID N=18</th>
<th>HEP N=22</th>
<th>SURG N=14</th>
<th>TC N=14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Living donor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- VS on ART**</td>
<td>8 (6,10)</td>
<td>7 (5,8)</td>
<td>7 (0,10)</td>
<td>8 (0,10)</td>
</tr>
<tr>
<td>- Use of specific</td>
<td>10 (9,10)</td>
<td>9 (8,10)</td>
<td>10 (9,10)</td>
<td>9 (5,10)</td>
</tr>
<tr>
<td>Consent Form for HIV-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>infected receptors*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Willingness to</td>
<td>100%</td>
<td>86%</td>
<td>86%</td>
<td>71%</td>
</tr>
<tr>
<td>participate in a HIV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D+/R+ trial, (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

83%, $p = 0.172$

VS = HIV virologically suppression; ART = Antiretroviral therapy; HIV/ID: HIV/infectious diseases; HEP: hepatology; SURG: liver surgery; TC: transplant coordination teams. 0 = Fully disagree; 10 = Fully agree. * Median (IQR) ** P value: 0.628.
Conclusions

• HIV D+/R+ LT is feasible and currently is under research studies.
• Most Spanish LT team specialists would use livers from virologically suppressed HIV-infected deceased or living donors for HIV-infected recipients with indications for LT.
• Conversely, they would not use organs from donors that were not HIV suppressed or in which HIV-infection was diagnosed at the time of transplant evaluation.
• The results of this survey could initiate a change of the donor law in Spain.