The purpose of this study was to analyze 24 pregnancies in 18 female lung transplant recipients. Data were collected via questionnaires, interviews, hospital records by the National Transplantation Pregnancy Registry. Outcomes included 15 livebirths, 5 therapeutic abortions, 6 spontaneous abortions. Comorbid conditions during pregnancy included: hypertension, infections, diabetes, preeclampsia, and rejection. At last recipient contact, with a mean follow-up of 6.7 ± 4.4 yrs, 11 had adequate transplant function, 1 had reduced function, 5 recipients died and 1 recipient had a non-functioning transplant. Mean gestational age of the newborn was 33.6 wks. There were no stillbirths or structural malformations. At last follow-up, all surviving children were healthy and developing well. In conclusion, although successful pregnancies have been reported in female lung recipients, analyses of larger numbers of cases may help to identify pre-pregnancy factors predictive of adverse outcomes.

Abstract

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Pregnancy Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livebirths</td>
<td>15 (58%)</td>
</tr>
<tr>
<td>Spontaneous abortions</td>
<td>6 (23%)</td>
</tr>
<tr>
<td>Therapeutic abortions</td>
<td>5 (19%)</td>
</tr>
<tr>
<td>Stillbirths</td>
<td>0</td>
</tr>
<tr>
<td>Ectopic pregnancies</td>
<td>0</td>
</tr>
<tr>
<td>Total Pregnancy Outcomes</td>
<td>26</td>
</tr>
</tbody>
</table>

*Includes triplets; Two neonatal deaths were reported associated with a multiple pregnancy.

Maternal Conditions

- Transplant to Conception Interval: 4.0 ± 3 yrs
- Hypertension during pregnancy: 10 (42%)
- Diabetes: 4 (17%)
- Infection: 5 (21%)
- Preeclampsia: 1 (4%)
- Rejection during pregnancy: 5 (21%)

Rejection

- Rejections during pregnancy: n = 5 (21%)
  - 2 Chronic (pregnancies terminated)
    - 1 recipient retransplanted
  - 3 Acute
- Rejection postpartum: n = 4 (17%)
  - 1 Chronic
  - 3 Acute

Incidence of rejection during pregnancy in other solid organ recipients ranges from 1%-14%

Maternal Graft Function

- Graft function at last follow-up: (mean 6.7 ± 4.4 yrs)
  - adequate: 11 (61%)
  - reduced/poor function: 1 (6%)
  - recipient death: 5 (28%)
  - non-functioning: 1 (6%)

Newborn Outcomes

- n = 15
- Mean gestational age: 33.6 ± 6 wks
- Premature (<37 wks): 9 (60%)
- Mean birthweight: 2195 ± 1002 g
- Low birthweight (<2500 g): 9 (60%)

Conclusions

- Female lung recipients appear to face higher risks related to pregnancy when compared to other solid organ transplant recipients.
- There were no structural defects in the children born to lung transplant recipients.
- Although successful pregnancies have been reported in female lung recipients, analyses of larger numbers of cases may help to identify pre-pregnancy factors predictive of adverse outcomes.
- Centers are encouraged to report all pregnancies in transplant recipients to the NTPR.

To contact the NTPR and report additional pregnancies:
Thomas Jefferson University
1025 Walnut Street, 605 College Building, Philadelphia, PA 19107, USA
Phone: Toll-free 877-955-6877; 215-955-4820; fax 215-923-1420
Email: NTPR.Registry@jefferson.edu
Website: http://www.jefferson.edu/ntpr

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