

Pregnancy Outcomes in Female Lung Transplant Recipients

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Abstract

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.

Purpose

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Methods

Data were collected via questionnaires, interviews, and hospital records by the National Transplantation Pregnancy Registry (NTPR).

Pregnancy Outcomes*

Livebirths	15 (58%)
Spontaneous abortions	6 (23%)
Therapeutic abortions	5 (19%)
Stillbirths	0
Ectopic pregnancies	0
Total Pregnancy Outcomes	26

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

Maternal Immunosuppression During 24 pregnancies

- Cyclosporine based n = 8
- Neoral® n = 2
- Tacrolimus based n = 14
- Prednisone used as adjunctive therapy n = 21
- Azathioprine used as adjunctive therapy n = 18

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%)

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%

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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