



## Post-renal transplant pregnancy

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### Introduction

Women with chronic renal failure usually do not ovulate and thus are unable to conceive<sup>1</sup>. As renal function improves following kidney transplantation normal menses and ovulatory cycles resume. The course of pregnancy and delivery in kidney transplant patients has been challenging. Immunosuppressive medications are continued during the transplant patient's pregnancy because they are necessary to prevent rejection of the kidney. The baby is also exposed to these medications as they cross the placenta. Most of the babies have been found healthy at birth<sup>1,2</sup>.

### Case report

Mrs. A C D 24 year old 2nd gravida with 3 months of amenorrhoea was referred after conception following a renal transplant. Her first pregnancy was terminated at 3 months gestation 2 years after renal transplantation. She had right renal transplantation done in 1998 for bilateral contracted kidneys due to renal hypertension. Since then she was on capsule nifedipin 5 mg three times a day, tablet azathioprine 50 mg once a day and tablet prednisolone 7.5 mg once a day. Despite all risks the patient wanted to continue pregnancy. Average baseline investigations showed blood urea nitrogen 26 mg%, serum creatinine 2.1 mg% and total proteins 5.7 g/dL. Sonography was done monthly. Complete renal profile was done every 3 weeks and blood pressure was checked on alternate days. Sonography done on 15th November, 2001 showed a single intrauterine fetus of 32 weeks gestation with scalp edema, abdominal wall edema, fetal ascitis, hydrocele, dilated left ventricular cavity, irregular myocardial thickness, and polyhydramnios. The expected baby weight was 1.9 kg.

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The transplanted kidney showed mild splitting of the pelvic calyceal system. She was admitted the same day. After explaining the condition of the baby and the deteriorating renal function as reflected by serum creatinine of 3 mg% a decision for induction of labor was made. She was induced with prostaglandin E<sub>2</sub> cervical gel on 22<sup>nd</sup> November, 2001 and went in active labor. However emergency cesarean section had to be done for non-progression of labor with maternal exhaustion on 23<sup>rd</sup> November, 2001. She delivered a male baby weighing 2 kg and having non-immune hydrops. The baby was shifted to neonatal intensive care unit for further management. Despite all efforts the baby died on the 12<sup>th</sup> day due to terminal cardiorespiratory arrest, prematurity, non-immune hydrops and septicemia. At one month follow up her renal profile was normal.

### Discussion

Acute rejection crisis following renal transplant is quite rare during any stage of pregnancy but may occur in postpartum period. There is evidence that suggests that pregnancy attenuates the threat of rejection, and the renal function test that shows some degree of deterioration during the third trimester returns to the baseline level shortly after delivery in majority of the cases<sup>3</sup>. In humans there is no established evidence that malformations occur in patients with azathioprine or steroids<sup>4</sup>. The inferior location of the transplanted kidney has proved to be the cause of dystocia in a few cases<sup>3</sup>.

### References

1. Framarino di Malatesta ML, Poli L, Pierucci F et al. Pregnancy and kidney transplantation: Clinical problems and experience. *Transplant Proc.* 1983, 25:2188-9.
2. Gaudier FL, Santiago-Delpin E, Rivera J et al. *Pregnancy after renal transplantation. Surg Gynecol Obstet* 1988;167:533-43.
3. Williams G M. Clinical course following renal transplantation. In: Morris PJ (ed). *Kidney transplantation Principles and Practice.* New York. Grune and Stratton Inc. 1984;349-350.
4. Armenti VT, Ahlswede KM, Ahlswede B. A National Transplantation Pregnancy Registry – Outcome of 154 pregnancies in cyclosporine treated female kidney transplantation recipients. *Transplantation* 1994, 57:502-6.