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Case Report

Pregnancy outcome after double renal transplant in a secondary level hospital

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ABSTRACT

A 28-year-old recent migrant with no pre-conception care booked at 18 weeks of pregnancy with history of double renal transplant on left side wherein the kidney being placed in left iliac fossa. She was on cyclosporine, azathioprine, methylprednisolone the later was tapered in the first 2 months of pregnancy and was started on low dose aspirin, she had uneventful antenatal period until after 36 weeks when she developed mild preeclampsia and rising creatinine, which was managed by reducing immunosuppressant's dose and was restarted on prednisolone by discussion over telephone with nephrologist from neighbouring Regional Hospital. She had an elective LSCS at 38 weeks as requested and had a healthy male baby after steroid cover. Her intraoperative and postoperative period was uneventful as well.

Keywords: Double renal transplant, Tacrolimus, Azathioprine

INTRODUCTION

The rarity of renal transplant in pregnant women especially someone with two renal transplants which was managed successfully in a regional hospital without in house nephrologists is an important factor behind publication of this case report. The fact that she did not have any pre-conception care and booked at 18 weeks also made it a challenging endeavour for the staff, which ended by good neonatal and maternal outcome. In Ireland Between 1985-1998 there were 29 pregnancies in 19 women with live birth rate of 76%.¹ Most of which would have been managed in tertiary care centre, under care of Renal physician. There is no data from Ireland about patients with two kidney transplants. In the UK there are about 30-40 pregnancies annually with renal transplant, with live birth rate of 91%.^{2,3}

CASE REPORT

A 28-year-old lady came to booking clinic at 18 weeks of gestation in her second pregnancy the first being a

miscarriage, she was assigned due date of 22nd Dec 2015, she was a recent immigrant from an Eastern European country. She had a first trimester miscarriage in the past. Her last menstrual period was 15th March 2015, no menstrual problems. No cervical smears done.

Her medical history was she suffered from bilateral renal failure when she was a teenager reasons unknown, in year 2001 she received her first renal transplant in her home country, which lasted for 8 years, subsequently she had a nephrectomy and was on haemodialysis from 2009-2012 when she received her second kidney again in her home country. The left kidney after transplant was placed in left iliac fossa. She has no other medical problems or had any other surgeries apart from transplant.

Her social history was non-smoker, no alcohol in pregnancy. Family history had not contributory to her condition.

Antenatal period was as follows: she did not attend any pre-conception clinic but saw nephrologist in her home

country and then in Tullamore Hospital (Ireland) at the start of her pregnancy, both consultants were satisfied with her status and she was asked to continue tacrolimus 3 mg/day, azathioprine 50 mg/day, pantoprazole 40 mg/day and methylprednisolone 4 mg/day which was tapered in the subsequently in the first trimester itself. Her creatinine was within normal limits, she was commenced on low dose aspirin from the booking visit and brought for an anomaly scan at 20 weeks which was normal. Her booking serology was normal including rubella immunity and she was found to be Rh negative. She was screened for gestational diabetes and was found to be negative; she continued her pregnancy without any problem with satisfactory renal functions and foetal growth.

In the 37th week of pregnancy she developed mild to moderate preeclampsia which was managed by labetalol 100mg twice a day, during her stay in hospital her creatinine rose to 105 micro-mol/L when her management was discussed over phone with the consultant nephrologist from Tullamore Regional hospital, we were asked to check serum levels of her immunosuppressant's which led to increase in dose of tacrolimus to 4 mg/day and restart prednisolone at 10 mg/day, labetalol was stopped suspecting the reason behind her raising creatinine. Her foetal growth in last 4 weeks was monitored by departmental growth scans all of which showed satisfactory growth.

In view of her new onset preeclampsia discussion about delivery was done and was agreed between consultant and the patient to have a planned caesarean section and she had her baby on 9th Dec 205 at 38 weeks and 1 day after receiving 2 doses of betamethasone, she had healthy male baby, and her intraoperative and postoperative period was uneventful.

DISCUSSION

Our case report shows that despite a having two renal transplants and having no pre-conception care this patient had good outcome in terms of allograft survival, neonatal outcome and absence of major obstetric complication, this is in contrast to data from UKOSS which suggested women with 2 or more transplants and raised diastolic blood pressure in 2nd and 3rd trimester had poor outcome.³ The study also stated a 91% live birth rate.

The favourable factors were normal creatinine (<125 micromol/L) levels before pregnancy.⁴ More than one-year gap after transplant, absence of Gestational diabetes despite being on diabetogenic medications.³

The prophylactic low dose aspirin.⁵ Although our patient did develop preeclampsia it was easily managed without

necessitating preterm delivery and the one episode of raised creatinine did not reach high levels (>125 micromol/L) to warrant it as a major complication.⁴ The factors that may affect kidney graft during pregnancy are as follows (Table 1).⁶

Table 1: The factors that may affect kidney graft in pregnancy.

Haemodynamic changes
Hypertension
Impairment of renal functions
Rejection
Urinary tract infections

CONCLUSION

In summary in smaller centres without in house nephrologist can manage renal transplant patients if renal functions are optimized before pregnancy and patient low dose aspirin.⁵ This will give smaller units the evidence and boost in confidence to manage complex but optimized cases.

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