

# ACUTE RENAL FAILURE SECONDARY TO OBSTETRIC EMERGENCIES

By

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## SUMMARY

We are presenting 4 cases of acute renal failure secondary to Obstetric emergencies. In 2 cases renal failure occurred in the post partum period and in other 2 cases as a result of septic abortion. All 4 cases recovered completely. This was possible because of the co-ordination and promptness of action between the various departments. The prompt recognition of acute renal failure at the very onset has given us a very low incidence of acute renal failure in these cases as 1 in 1500 of the normal deliveries. No person died of renal failure per se. The cause of death in our cases is due to sepsis. The good outcome is possible only if there is a good co-ordination between the various departments and the capacity to recognise the complications in time.

### Introduction

Acute renal failure is relatively infrequent in pregnancy with an estimated incidence of 1 in 2000 to 1 in 5000. Acute renal failure in obstetric patients usually occurs in those with pregnancy induced hypertension that is complicated by some other obstetric factor, such as abruptio placentae with coagulopathy, or haemorrhage with secondary hypotension. The renal failure is usually an acute tubular necrosis which may develop in patients with disseminated intravascular coagulation which some times complicates septic abortion with overwhelming septicaemia. Cortical necrosis is more common late in gestation or immediately postpartum. The two rare forms of acute renal failure

peculiar to pregnancy are (a) acute renal failure occurring in association with acute fatty liver of pregnancy (also called obstetrical pseudoacute yellow atrophy) and (b) idiopathic postpartum renal failure.

Acute renal failure is a clinical syndrome characterised by a marked decrease in glomerular filtration rate, by rising blood urea nitrogen and serum creatinine levels and usually by oliguria (defined as urine output less than 400 ml. per day).

We are presenting 4 cases of acute renal failure following obstetric emergency. These cases were studied during a one year period 1984-85. The incidence of acute renal failure occurring due to obstetric emergencies in our study at Southern Railway Headquarters Hospital, Perambur, is 1 in 1500.

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## CASE REPORT

## Case 1

Gravida II was admitted in Gynaec. ward with the history of induced abortion with severe renal failure and septicaemia. Renal failure was controlled with haemodialysis. Surgical exploration of the patient was done which revealed a perforated uterus with pelvic abscess. Hysterectomy was done along with the drainage of the pus. She had an uneventful postoperative period and had recovery of the renal failure.

## Case 2

Mrs. X, presented with septic abortion, septicaemic shock and renal failure. As the patient was in a hypercatabolic state, haemodialysis was attempted. Haemodialysis could not be carried out successfully because of the recurrent clotting tendency. Haematological investigation revealed hypercoagulable state probably induced by placental toxins. She was managed by placing a chronic ambulatory peritoneal dialysis catheter and peritoneal dialysis was done on alternate days. Renal function recovered but she remained with a serum creatinine value between 1.6-2 mg. Renal biopsy revealed an area of necrosis and areas of crescentic glomerular involvement. This patient remained with a mild renal failure and continued in the same state asymptotically.

## Case 3

Mrs. A, Gravida II delivered outside had postpartum haemorrhage with a loss of about 500 ml. of blood. She was brought in a state of renal failure. History of pre-eclamptic toxemia was present. She was treated with haemodialysis. Renal function improved. Renal biopsy revealed patchy cortical necrosis.

## Case 4

Mrs. A, Gravida III was admitted with the history of nine months' amenorrhoea. Her previous 2 pregnancies were delivered by lower segment caesarean section, indication being Cephalopelvic disproportion. Her third pregnancy was also delivered by lower segment caesarean section. Three hours after surgery, patient developed bleeding per vaginum and

generalised oozing from the wound. Haematological investigations revealed thrombocytopaenia and increased bleeding time. She had evidence of haemolysis resulting in renal failure. She was managed by exchange transfusion with platelet rich fresh blood along with haemodialysis. Patient recovered completely. Cause of Disseminated Intravascular coagulation is not clear. The remote possibility of haemolysis could be due to sub group incompatibility.

## Discussion

We have presented four cases of acute renal failure, the first 2 secondary to septic abortion, third secondary to normal delivery and postpartum haemorrhage and the last case secondary to lower segment caesarean section. The cause of acute renal failure in the first 2 cases was disseminated intravascular coagulation secondary to septicaemia. Once the focus of sepsis was cleared, the recovery was dramatic. In case 3, renal failure was induced by hypovolaemic shock resulting in acute cortical necrosis. 50% of the cases of renal failure in obstetrics are due to cortical necrosis. Recovery in these cases is good if the renal lesion is of patchy necrosis. The last case, lower segment caesarean section was done under epidural anaesthesia without any problem during surgery. Biopsy was not done in the last case. All the 3 cases recovered renal function to normal levels and remained normal. One case continues to be in a state of mild renal failure but stable and is asymptomatic.

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