

“ACUTE RENAL FAILURE IN POST PARTUM PERIOD –STILL A CHALLENGE IN DEVELOPING COUNTRIES”

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ABSTRACT

Acute kidney injury in pregnant patients and more so in postpartal period continues to be a challenge in developing countries.^[1] Though its incidence has decreased due to decline in the cases of unsafe abortions and improved perinatal care, but other factors which can lead to the sequelae of kidney failure such as toxemia of pregnancy, anemia, antepartum or postpartum hemorrhage.^[2,3] We here report a case of a patient who presented with antepartum hemorrhage and the sequelae ended up in acute renal failure, though active and timely intervention and multidisciplinary management saved the patient.

KEYWORDS: *antepartum hemorrhage, postpartal acute kidney failure, dialysis.*

INTRODUCTION

Acute renal failure is characterized by oliguria, rising blood urea and serum creatinine values, metabolic acidosis and hyperkalemia.^[4] In obstetrics, the underlying cause could be associated with deranged coagulation profile. Abruption placentae, intrauterine dead fetus, pre eclampsia and puerperal sepsis enhance the risk of a parturient to land up in acute renal failure in early or late postpartum period.^[5]

CASE REPORT

An unbooked 30 years old grand multigravida, G₇P^[6] with bad obstetric history with no live issues, with all previous births were preterm intrauterine dead or stillbirths, was admitted in labor room, Umaid Hospital, Jodhpur with the complaints of 7 months of amenorrhea and

bleeding per vaginum since one day. Her vitals on admission were pulse rate- 90/min, Blood pressure- 140/90mmHg and urine albumin was trace. She was clinically pale. Per abdomen exam revealed uterus enlarged to 28-30 weeks with cephalic presentation and fetal heart sound present on the left spino umbilical line. On per speculum examination bleeding per vaginum was present. Patient had no previous antenatal ultrasound scan.

After all routine investigations, her ultrasound scan was done which revealed single live fetus of GA 29 weeks 1 day with retro placental hematoma of size 3.2x4.3x4.3 centimetres. Hemoglobin was 6.4 gm % and she was given 2 units of blood transfusion. Patient spontaneously went in labour and delivered a stillborn male child weighing 700 gm. The intrapartum period was uneventful, but in postpartum period after 24 hours of delivery she progressively had decreased urine output which culminated in anuria over a period of 48 hours associated with periorbital and facial puffiness with nausea and vomiting. Her renal function test values worsened as the days passed on along with increasing leucocyte count and decreasing platelet count. Regular blood pressure monitoring and urine albumin (dip stick method) monitoring was done.

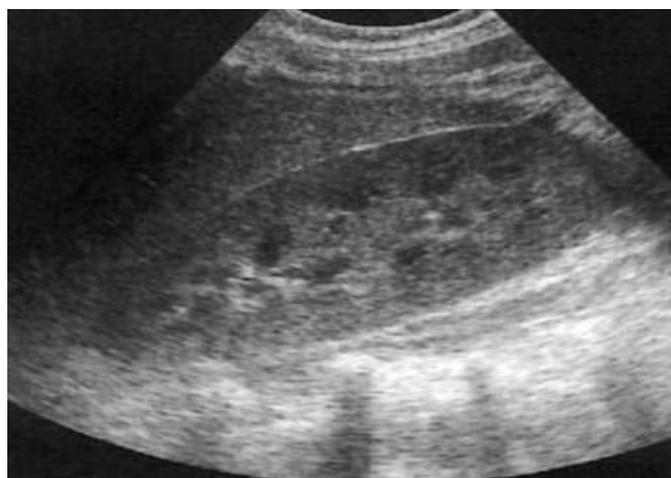


Fig 1. Ultrasound images of acute renal failure demonstrating an enlarged, diffusely hyperechoic kidney with loss of corticomedullary differentiation.

Post partal ultrasound of whole abdomen was done which suggested features of acute renal failure, with diffusely enlarged, hyperechoic kidney and loss of corticomedullary differentiation. Physician and Nephrologist consultation was done. Patient was shifted to dialysis unit for hemodialysis to decrease BUN levels along with broad spectrum intravenous antibiotics (meropenem and levofloxacin) and supportive care. Dialysis was done on daily

basis for initial 3 days till urinary output increased and serum creatinine values returned to normal values, then on alternate days for 6 days and then discontinued. Patient responded well to hemodialysis and was discharged from hospital and followed up at weekly interval for two months.

DISCUSSION

Abruptio placentae, pre eclampsia and intrauterine dead fetus are important predisposing factors for renal failure.^[5] The cascading events are deranged coagulation profile resulting in consumption coagulopathy, DIC and glomerular thrombosis and finally acute renal failure sets in. Puerperal sepsis further adds to deterioration of the patient's clinical condition.^[6] In my patient the coagulation profile was deranged and she also had anemia with septicemia. Tests to rule out Systemic Lupus Erythematosus, Wegener's granulomatosis, antiphospholipid antibody syndrome and other connective tissue disorders should also be done as they can be predisposing factors for renal failure in pregnant female^[7] but couldn't be done in my case due to financial hurdles. As my patient did not have any antenatal checkup at any health center, previous history of any urinary tract infections or pyelonephritis could not be elicited as these are also important predisposing factors for the onset of Acute Renal Failure.

CONCLUSION

Early diagnosis of the cause and correction of underlying pathology and multidisciplinary management is the key stone in management in acute renal failure in parturient patients and hence improve maternal outcome.

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