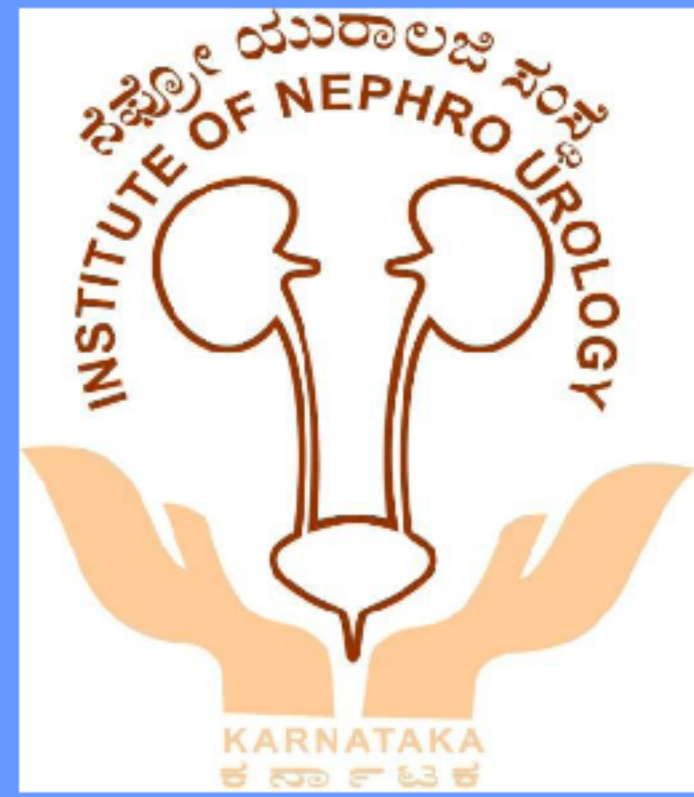
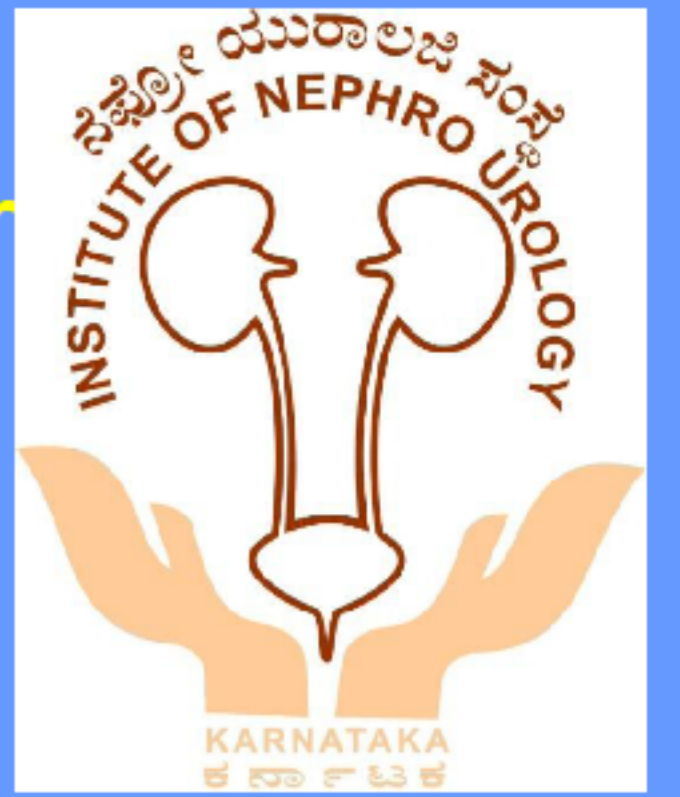


PREGNANCY RELATED ACUTE KIDNEY INJURY – A SINGLE CENTER EXPERIENCE



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Objectives:

Pregnancy-related acute renal injury (PRAKI) may comprise up to 25% of the referrals to dialysis centers in developing countries and is associated with substantial maternal and fetal mortality. [1]

AKI in pregnancy is associated with a high risk for maternal mortality (9-55%). [2]

Septic abortion is the most common cause of AKI in early pregnancy, whereas toxemia of pregnancy, hemorrhage, and ischemic acute tubular necrosis occur in late pregnancy. [3],[4]

Other causes of PRAKI include HELLP Syndrome in the third trimester of pregnancy, acute fatty liver , puerperal sepsis and thrombotic microangiopathy in the postpartum period.

Methods:

• In this prospective study conducted at Institute of Nephrourology , Bangalore, 100 consecutive cases of AKI were enrolled between July 2012 to November 2012 between the study period, out of which 24 were Pregnancy related.

• AKI was diagnosed by oliguria, azotemia (Serum Creatinine >1.5 mg/dl or 0.3 mg/dl increase above baseline) with or without requirement for Hemodialysis.

Renal Biopsy was performed if patient was oliguric or dialysis dependent at the end of 3 weeks.

Exclusion criteria were the following:

- Evidence of renal disease prior to pregnancy (glomerulonephritis , renal insufficiency from any cause)
- History of hypertension or diabetes before gestation
- History of renal stone diseases
- Renal scarring on ultrasonography
- Small size of the kidneys
- Elevated serum creatinine prior to gestation.

Patients who became dialysis independent with good urine output and renal function were discharged and followed-up every fortnight for three months.

Results:

• Out of 100 cases of AKI , 24 were Pregnancy related.

• The mean age of patients with pregnancy-related AKI was 24.6 years. The youngest patient was 19 years old and the eldest was 36 years old.

• In our study, 10 (41.6%) patients were primigravida and 14 (58.4%) were multigravida.

• Puerperal sepsis was the commonest cause of AKI in our study 15 patients (62.5 %) followed by Preclampsia /Eclampsia /HELLP in 5 patients (20.8 %)

• 18 patients (75 %) required Hemodialysis and remaining 6 patients were managed conservatively.

• Retained products of conception was present in nearly half of patients with puerperal sepsis .

• Renal biopsy was done in three patients and 2 had features suggestive of acute cortical necrosis and 1 acute interstitial nephritis.

• Maternal mortality was 20.8%. Out of 19 (79.2%) surviving patients 17 patients had (70.8%) full recovery of renal functions, 1 had partial recovery and 1 patient was dialysis dependent.

Conclusions:

Pregnancy related acute kidney injury continues to be most common cause of AKI in tertiary referral hospital.

Puerperal sepsis is the most common etiology of PRAKI in our study associated with high maternal mortality. Preventable cause like Retained products of conception continues to be important cause of puerperal sepsis.

Sepsis , thrombocytopenia , DIC and multiorgan involvement was associated with maternal mortality.

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