INTRODUCTION
In developing countries, pregnancy related AKI (PRAKI) is contributing 15-20% to the total number of AKI (1). Obstetric renal failure has bimodal occurrence with first peak in 8-16 wks of gestation due to septic abortion related complications and late peak due to obstetric complications like Preeclampsia, Eclampsia, Abruptio Placenta, Uterine hemorrhage, and Puerperal Sepsis (2). PRAKI is on decline from 14.5% in 1987 to 4.3% in INDIA (3). The spontaneous abortion rate is approximately 50% for pregnant women who require dialysis. We present here our observation with PRAKI from SOUTH TAMILNADU as our institute located in MADURAI is the main referral tertiary care centre with dialysis facility in this region.

MATERIALS AND METHODS
We conducted a observational study at our institute from January 2018 to November 2018 to report the incidence, clinical spectrum and maternal & fetal outcome in AKI.

RESULTS:
Total number of patients 40, Mean age 25.3 ± 4.3 yrs. The incidence of AKI in pregnancy was 6%. Incidence of AKI most common in postpartum period (80%), causes of AKI was Sepsis (40%), HELLP (20%), Postpartum hemorrhage (20%), Abruptio placenta (15%), Acute fatty liver of pregnancy (5%). Among them 80% of patients having preeclampsia as common risk factor. Live births was 80%. Among total pregnancy related AKIs 14 patients were managed conservatively and 26 needed dialysis. recovered patients were (N=38) 95%, and mortality was (N=2) 5%.

CONCLUSION: AKI in pregnancy commonly occurred in postpartum period and Sepsis is the most common etiology.

KEYWORDS:
Acute kidney injury is a threatening complication of pregnancy causing serious maternal and fetal morbidity and mortality, common in developing countries.

METHODS: A observational study was done between January 2018 to November 2018 to report the incidence, clinical spectrum and maternal & fetal outcome in AKI.

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DEFINITION
AKI: Serum creatinine increased about 1.5 times from the baseline or when the urine output decreased to less than 400 ml for more than 6 hrs or both

Oliguria: Urine output less than 400 ml/24 hrs

Anuria: Urine output less than 50 ml/24 hrs

Preeclampsia: BP ≥ 140/90 mmHg, after 20 wks of gestation in a previously normotensive woman and proteinuria more than 300 mg in 24 hrs

Eclampsia: Generalized convulsions or loss of consciousness occurring during pregnancy or postpartum period in preeclampsia

HELLP Syndrome: Hemolysis (characteristic peripheral blood smear, serum LDH ≥ 600 U/L, total serum bilirubin ≥ 1.2 mg/ml), Elevated liver enzymes (serum AST ≥ 70 U/L), and low platelet count (<100000/cu mm)

Complete Recovery: Serum creatinine less than 1.2 mg/dl.

Chronic Kidney Disease: Serum creatinine ≥ 1.5 mg/dl at 3 months.

RESULTS
Of the 660 cases of AKI 40(6%) of cases were related to pregnancy.

AKI IN PREGNANCY

PREVIOUSLY

Next

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Fourty Three point Eight Six percent of patients constituted 43.86%.

In our study, PRAKI was frequent (80%) in the postpartum period similar to gopalakrishnan et al (1). Studies showed the incidence of HELLP causing AKI ranges from 3% -40%. HELLP develops in approximately 1-2 per 1000 pregnancies overall and 10-50% of women with severe pre-eclampsia/eclampsia. The majority of cases are diagnosed between 28-36 weeks of gestation with 70% occurring prior to delivery. Only 20% of postpartum patients with HELLP have evidence of ante-partum pre-eclampsia. In our study, preeclampsia is the common risk factor associated with all the causes of PRAKI (75%) in contrast to only 21% constituting AKI in other studies.

The major adverse outcomes associated with pre-eclampsia are related to maternal CNS, hepatic, renal dysfunction, bleeding related to thrombocytopenia, preterm delivery, fetal growth restriction, abruptio placentae and perinatal death. In mild pre-eclampsia neonatal outcomes are generally good and comparable to those of normotensive women. Risk of recurrence in subsequent pregnancy depends upon severity of disease, gestational age at onset and gestational age at delivery. All the patients in our study received medical therapy for infection in addition to dialysis.

Pre-eclampsia is also associated with microangiopathies. Other conditions are thrombotic thrombocytopenic purpura and Hemolytic uremic syndrome which are characterized by thrombocytopenia, hemolytic anemia, and multiorgan failure. TTP involves CNS and HUS predominantly affects kidneys.

Requirement of hemodialysis is 65% similar 74% to ansari et al (2), arora et al (3), gopalan et al(4). Complete recovery is 95% in our study in contrast to 42% in ansari et al (2). Mortality was 5% in our study against reported incidence of 2-45% in the literature. Fetal loss in our study was(95%) similar to Postpartum hemorrhage (4), and Antepartum hemorrhage (5,2). Complete recovery is 95% in our study in contrast to 42% in ansari et al (2). Mortality was 5% in our study against reported incidence of 2-45% in the literature. Fetal loss in our study was 5% against 58% in Ansari et al (2).  

CONCLUSION:
We conclude that the most common cause of AKI in pregnancy is sepsis. Early detection of cause of sepsis, early referral to tertiary centre and treatment with appropriate antibiotics may decrease the incidence of AKI.