

## NSAID Induced Acute Kidney Injury in Preterm Neonates with Patent Ductus arteriosus

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### Background

The standard care for patent ductus arteriosus (PDA) closure in preterms is by cyclo-oxygenase inhibitors i.e. non-steroidal anti-inflammatory drugs (NSAID) indomethacin or brufen. Administration of NSAIDs may precipitate acute kidney injury (AKI).

### Aims & Objectives

To study neonates with NSAID induced AKI.

### Materials & Methods

Retrospective review of case records of 1 year of preterms who received NSAIDs for PDA closure. Data collection included maternal history and neonatal details of gestational age, gender, weight, intake, urine output, serum biochemistry, presence of sepsis, use of nephrotoxic drugs. AKI was diagnosed if there was a fall in urine output <1ml/kg/hr or rise in creatinine of >

0.5mg/dl.

### Results

Thirty one preterms received NSAIDs for PDA closure. All received aminoglycoside as per NICU protocol, none had sepsis prior to study drug administration and received fluids as per the recommendations for gestational age and day of life. None of the mothers had risk factors for neonatal AKI. Eight (26%) developed AKI; low urine output in 5 (16%), high SCr was in 5 (16%), both were affected in 2 (6.4%). 5 were discharged when SCr showed a falling trend, 1 was discharged against medical advice and 2 died.

### Conclusions

Our observations of NSAID use in preterms reiterates that AKI is a risk hence renal function should be closely monitored.