

Incidence of acute renal failure in birth asphyxia and its correlation with hypoxic ischemic encephalopathy (hie) staging

Mangal charan murmu

SCB Medical College & Hospital, India

Abstract

Acute renal failure is recognized complications of birth asphyxia; it carries a poor immediate prognosis and may result in permanent renal damage in up to 40% of survivors. Early recognition of Acute renal failure is particularly important in asphyxiated neonates with HIE, in whom a stable biochemical milieu is vital, because it facilitates the administration of appropriate fluid and electrolyte replacement. So we performed this study to determine the incidence of renal failure in birth asphyxia and to correlate the severity of renal failure with and HIE grading of asphyxiated neonates. **METHOD:** 100 term (37-42 wks) neonates born with Apgar score of 7/< 7 at 5 minutes after birth were selected as cases and 50 normal term (37-42 wks) neonates as controls. All asphyxiated neonates (as per WHO definition) with clinical features of HIE are staged by Sarnat & Sarnat staging. Gestational age, birth weight relevant perinatal history examination findings are recorded in predesigned proforma. After 72hrs and before 96 hrs of life blood was collected and sent for relevant investigations and clinical condition of the baby and urine output was monitored and was managed according to standard protocol. **RESULT:** Incidence of ARF is significantly more in Cases (75.0% vs 4.0%) 18.4 times more likely when

compared to controls. Presence of Shock is significantly associated with ARF (84.5%).

CONCLUSION: Perinatal asphyxia is an important cause of neonatal renal failure. ARF in birth asphyxia is predominantly pre-renal ARF and responds to fluid challenge and it is of non oliguric type. ARF in birth asphyxia correlates well with HIE staging. Mortality is more in intrinsic ARF. Early diagnosis and management of renal failure helps in prevention of intrinsic renal failure and its consequences.

Biography

Mangal Charan Murmu is working as Associate Professor at SCB Medical College & Hospital, Cuttack, Odisha.