

Etiology of Neonatal Seizures and Associated Biochemical Abnormalities

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ABSTRACT

A prospective observational study including neonates presenting with seizures admitted to neonatal intensive care unit (NICU) was done in tertiary level hospital ,Jhansi from October 2015 to November 2016 with objective to assess various etiological factors of neonatal seizures to study the biochemical abnormalities in neonatal seizures. The etiology of neonatal seizure, time of onset and its relation to etiology and associated biochemical abnormalities were established in each case. Out of 110 neonates studied, birth asphyxia was the commonest cause of neonatal seizures. Subtle seizures were most common type of seizures among patients of neonatal convulsion. Most of patients were term (62.7%) and most of seizures were observed in first 3 days of life (75.5%). Most common biochemical abnormality was hypoglycaemia followed by hypocalcemia, hyponatremia, hypernatremia, hypermagnesemia and hypomagnesaemia. In patients of birth asphyxia, most common abnormality was hypoglycaemia (17.77%) and hyponatremia (17.77%) followed by hypermagnesemia (16.6%). In patients of sepsis, hypoglycaemia (44.49%) was most common abnormality followed by hypocalcemia (18.57%). In IDM (Infant of Diabetic Mother) patients, hypoglycaemia and hypocalcemia was found in all patients. In subtle seizures most common abnormality was hyponatremia followed by hypoglycaemia while in tonic seizures, hypomagnesaemia followed by hypernatremia. In clonic seizures most common abnormality was hypoglycaemia and hypocalcemia.