SUMMARY AND CONCLUSION

Perintal asphyxia is an insult to the fetus or newborn due to lack of oxygen (hypoxia) and / or lack of perfusion (ischemia) to various organs it is associated with tissue lactic acidosis ***(Snyder and Cloherty, 2005)***

Throughout the world, intrapartum hypoxic-ischemic insults remain an important cause of perinatally acquired brain injury in full-term infants ***(Evans and Levene, 2004***)

It occurs in 0.5% of live born infants more than 36 weeks gestational age and accounts for 20% of perinatal deaths (or as high as 50% of deaths if stillborns are included) . The incidence is higher in term infants of diabetic or toxemic mothers; these factors correlate less well in preterm infants.

In both preterm and term infants, intrauterine growth retardation (IUGR) and breech presentation are associated with an increased incidence of asphyxia .Postmature infants are also at risk .

(Synder & Cloherty , 2005)

Cranial ultrasound scans are widely used to identify neonates at risk for brain injury and subsequent neuro-developmental defects, most commonly as a consequence of severe intraventricular hemorrhage (IVH) and cystic periventricular leukomalacia (PVL). Because of the sensitivity of ultrasounds to IVH and periventricular abnormalities and the ease with which ultrasounds can be performed at the bedside, surveillance protocols using US have evolved for screening neonates ***(Jeffrey et al., 2000).***

Neo-Neuro & Up Score (NNUS) is designed for neurologic evaluation of infants from 38 weeks' gestation to 16 weeks of age. The

full score includes 32 items to be assessed. The first four items are questions asked for caretaker about the irritability /apathy of the infant. The last four items are observations by the examiner about alertness of the infant ***(Fletcher,1998)***.

We conducted this study to determine relationship between cranial ultrasound findings and neurological evaluation in 30 neonates suffering from perinatal asphyxia with Benha Children Hospital and form the study we found that there is highly significant correlation between Neo-Neuro & Up Score (NNUS) and cranial ultrasound findings. This indicates that NNUS can be used as a reliable tool for assessment of cases with birth asphyxia and hypoxic ischemic encephalopathy (HIE) especially when cranial ultrasound is not available or feasible. It is a good diagnostic and prognostic tool.