

Ultrasonographic Manifestation of Periventricular Leukomalacia in Preterm Neonates at Teaching Hospital Peradeniya, Sri Lanka

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Abstract : Periventricular Leukomalacia (PVL) is a White Matter Injury (WMI) of preterm neonatal brain. Objectives of the study were to assess the neuro-developmental outcome at one year of age and to determine a good protocol of cranial ultrasonography to detect PVL. Two hundred and sixty four preterm neonates were included in the study. Series of cranial ultrasound scans were done by using a dedicated neonatal head probe 4-10 MHz of Logic e portable ultrasound scanner. Clinical history of seizures, abnormal head growth (hydrocephalus or microcephaly) and developmental milestones were assessed and neurological examinations were done until one year of age. Among live neonates, 57% who had cystic PVL (Grades 2 and 3) manifested as cerebral palsy. In conclusion cystic PVL has permanent neurological disabilities like cerebral palsy. Good protocol of real time cranial ultrasonography to detect PVL is to perform scans at least once a week until one month and at term (40 weeks of gestation).

Keywords : cerebral palsy, cranial ultrasonography, Periventricular Leukomalacia, preterm neonates

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