

HEADACHE AND SLEEP DISORDERS

Investigators from Sapienza University, Italy, studied the prevalence and treatment of sleep disorders in children with migraine. Treatment of insomnia, sleep apnea, sleep bruxism and restless legs syndrome often leads to improvement of migraine. Prodromal symptoms of migraine (yawning, drowsiness, irritability, mood changes, hyperactivity) support a direct role for the dopaminergic system that is also involved in sleep-related movement disorders. Child education and lifestyle modification including sleep hygiene have a significant role in the management of migraine. Comorbid sleep disorders should be screened in children with migraine. (Guidetti V, Dosi C, Bruni O. Sleep and headache in children: specific pattern in migraine, implication for the treatment. **Cephalalgia** 2014 Jun 27. [Epub ahead of print]).

COMMENTARY. The association of migraine and sleep disorders, especially restless legs syndrome, is discussed by another Italian group of investigators [1].

References.

1. Cevoli S, et al. *Neurol Sci*. 2012 May;33 Suppl 1:S43-6.

VASCULAR DISORDERS

PERIVENTRICULAR HEMORRHAGIC INFARCTION (PVHI) OR PERIVENTRICULAR LEUKOMALACIA (PVL)

Investigators from Okazaki City Hospital, and other centers in Japan retrospectively evaluated the clinical features, ultrasonography, and EEG findings in 22 preterm infants with PVHI and 49 with PVL. Gestational age and birth weight were significantly lower in infants with PVHI than those with PVL. EEGs performed serially beginning immediately after birth were normal in the majority of infants with PVHI on days 1-2. EEG abnormalities appeared after ultrasonography abnormalities. The majority of infants with PVL (28 (85%) of 33) showed acute-stage EEG abnormalities on days 1-2. Acute-stage EEG abnormalities were more frequent in infants with PVHI than in those with PVL on days 5-14 ($p < 0.05$). The rate of infants with acute-stage EEG abnormalities decreased with age, whereas the rate of infants with chronic-stage EEG abnormalities increased with age. Normal EEG before ultrasonography abnormalities was more common in infants with PVHI than in those with PVL. PVHI causes mostly postnatal injury, whereas PVL is presumed to cause mostly pre- or perinatal injury. (Tsuji T, Okumura A, Kidokoro H, et al. Differences between periventricular hemorrhagic infarction and periventricular leukomalacia. **Brain Dev** 2014 Aug;36(7):555-62).

COMMENTARY. PVHI and PVL are well-defined white matter injuries in preterm infants that are accompanied by neurological sequelae. Cranial ultrasonography (US) in infants with PVHI shows periventricular intraparenchymal echodensity (IPE) at 1-3 days after birth, whereas cystic changes in deep white matter are seen in infants with cystic PVL at 1-3 weeks.