MRI IN PSEUDOTUMOR CEREBRI

The MRI has been used to clarify the pathophysiology of pseudotumor cerebri in seven children, aged between six months and 13 years, reported from British Columbia's Children's Hospital, Vancouver. All had papilledema, three abducens palsies, and six had headache and/or visual impairments. Topical steroid therapy for eczema and mastoiditis were predisposing factors in two. CT head scans were normal. MRIs showed normal signal intensity in the white matter, suggesting that periventricular brain water content was not markedly increased. The authors hypothesize an equilibrium between raised CSF outflow resistance and increased cerebral blood volume and/or mild interstitial cerebral edema. (Connolly MB et al. Magnetic resonance imaging in pseudotumor cerebri. Dev Med Child Neurol Dec 1992; 34: 1091-1094). (Correspondence: Dr Kevin Farrell, Rm 1D14, British Columbia's Children's Hospital, 4480 Oak St, Vancouver, B.C. V6H 3V4).

COMMENT. Increased cerebral blood volume, confirmed by PET, an abnormal CSF dynamics, demonstrated by decreased arachnoid absorption, and cerebral edema, defined by brain biopsy, are some of the hypotheses proposed in pseudotumor cases. Periventricular edema, the expected consequence of a resistance to CSF outflow, was not demonstrated in this MRI study. Predisposing factors in children have included otitis media, venous sinus thrombosis, mastoiditis, mild head trauma, viral infections, vitamin A intoxication, teracyclines, obesity, menstrual irregularities, nutritional disturbances, and steroid therapy or withdrawal.

KNEE-CHEST POSITION: A SIGN OF INCREASED IC PRESSURE

A preference to lie in the knee-chest position was associated with increased intracranial pressure (ICP) in three children, ages 12 and 20 months and 4 years, reported from the Sackler School of Medicine, Tel Aviv University, Petach Tikvah, Israel. The forehead touched the floor on a level with the chest and knees, and the rest of the trunk was elevated so that the buttocks were uppermost. The 4-year old child had a mass in the pineal area, with obstructive hydrocephalus; the 20 month-old had pseudotumor cerebri that responded to acetazolamide and a return to a normal posture; the 12-month old had a cerebellar astrocytoma and obstructive hydrocephalus. The authors postulate that the knee-chest position favors a reduced pressure in the right heart atrium, thus augmenting the blood flow from the superior vena cava and dural sinuses. (Straussberg R et al. Knee-chest position as a sign of increased intracranial pressure in children. J Pediatr Jan 1993; 122: 99-100). (Reprints: Rachel Straussberg MD, Dept Pediatrics, Hasharon Hospital, Petach Tikvah, Israel).