M Sciacco, Department of Neurological Sciences, University of Milan, Via F Sforza 35, 20122, Milan, Italy).

COMMENT. Polymyositis during pregnancy is rare and may be associated with stillbirth. In infants who survive, the serum CK may be elevated for extended periods. Normally, CK levels can be increased for 3 to 4 days after birth, especially after vaginal birth.

INFECTIOUS DISORDERS

INFLUENZA-ASSOCIATED ENCEPHALITIS

Twenty patients with influenza-associated encephalitis/encephalopathy treated during the 1997-2001 influenza A epidemics in Japan are reported from Niigata City General Hospital, Japan. The mean age was 3 years (range 1 to 12 years). No patient had been inoculated with influenza vaccine. None had received aspirin, but 16 patients had received antipyretics (diclofenac or acetaminophen) before onset of encephalopathy. Most had generalized tonic-clonic seizures, and most were treated with midazolam and corticosteroids intravenously. EEG showed high-voltage slow waves in 9 of 17 patients tested, flat records in 3, and focal discharges in 4. Five patients died, 8 had neurologic sequelae (mental retardation and epilepsy), and 7 recovered completely. Patients who died had hepatic involvement and disseminated intravascular coagulation; all had antipyretics but none had received acetaminophen alone. Patients who recovered had also received antipyretics. Five who died had acute necrotizing encephalopathy (with symmetric lesions in the thalami, brain stem, and cerebellum), 1 other had hemorrhagic shock and encephalopathy syndrome, and 2 had symptoms resembling Reye's syndrome. In 2 deceased patients, plasma levels of cytokines were very high. Influenza vaccination to protect younger children from encephalitis/encephalopathy is recommended, especially those 5 years of age and under. (Yoshikawa H, Yamazaki S, Watanabe T, Abe T. Study of influenza-associated encephalitis/encephalopathy in children during the 1997 to 2001 influenza seasons. J Child Neurol Dec 2001;16:885-890). (Respond: Dr Hideto Yoshikawa, Department of Pediatrics, Niigata City General Hospital, 2-6-1 Shichikuyama, Niigata 950-8739, Japan).

COMMENT. The incidence of severe acute encephalitis/encephalopathy with influenza has increased in Japanese epidemics in recent years, and 80% of cases occur in children 0 to 5 years of age. The authors cite 202 cases in the nationwide surveillance, of whom 31% died, 26% had residual neurologic sequelae, and 43% recovered completely. Apart from the lack of vaccination, the reasons for the high incidence, mortality and morbidity were not clear. The above Niigata study shows that acute necrotizing encephalopathy with cerebral edema and thalamic lesions is the reason for the high mortality. The role of antipyretics, especially diclofenac, in the cause of influenza encephalopathy needs further investigation. Hypercytokinemia heralds a poor prognosis. Influenza vaccination is now promoted, especially in young children, and the use of antipyretics is discouraged.

SERIAL MRI IN RASMUSSEN'S ENCEPHALITIS

The course of Rasmussen's encephalitis (RE) was studied by a correlation of serial MRI and histopathology of surgical specimens in 10 patients (7 children, 1 adolescent, 2 young adults) followed at the University of Bonn, Germany, and University of Vienna, Austria. All developed the typical progressive hemispheric

signs and symptoms of RE. MRI abnormalities had a focal onset and spread across one hemisphere with late progressive atrophy. The earliest abnormal MRI finding was cortical swelling with hyperintense T2/FLAIR signal. Histopathology showed a higher number of T cells and reactive astrocytes in the earlier MRI focal stages compared to the late atrophic stage. The early stages are characterized by the highest inflammatory changes and late stages are mainly atrophic. (Bien CG, Urbach H, Deckert M et al. Diagnosis and staging of Rasmussen's encephalitis by serial MRI and histopathology. Neurology January (2 of 2) 2002;58:250-257). (Reprints: Dr C Bien, University of Bonn, Department of Epileptology, Sigmund-Freud-Str 25, D-53105 Bonn, Germany).

COMMENT. The course of RE is characterized by an early inflammatory stage, as judged by density of T cells and microglial nodules, followed by a decrease in inflammation and an atrophic stage. These inflammatory changes have a temporal or frontocentral onset and spread across a hemisphere, as judged by MRI. Deterioration with atrophy occurs within the first 2 years after onset. If a diagnostic brain biopsy is planned, early inflammatory changes should be found in areas of increased MRI signal. The data suggest that immunosuppressive treatment may be most effective during stages of active inflammation, usually in the first 15 months after onset. Hemispherectomy is usually reserved for patients with a residual hemiplegia, at the late atrophic stage.

SPHENOID SINUSITIS AND MIGRAINE-TYPE HEADACHE

Three case histories of children (ages 10, 12, and 14 years) with isolated sphenoid sinusitis who presented with acute, subacute, and chronic headache symptoms resembling migraine are reported from the University of Texas-Houston Medical School. The acute headaches (patient 1) were associated with vomiting, insomnia, photophobia, and phonophobia. Subcutaneous sumatriptan 6 mg resulted in only modest relief of symptoms. CT showed sphenoid sinus opacification. Symptoms resolved with antibiotics. The subacute headaches (patient 2) were bifrontal and throbbing, and occurred 30 min after awakening. The headaches were associated with photophobia and phonophobia, and they occurred almost daily. Mother had a history of migraine. CT scan showed opacification of sphenoid sinuses. Headaches resolved following antibiotic therapy. Patient 3 was referred with a diagnosis of migraine. He had a 3 year history of spenoid sinusitis, previously treated with surgical drainage, and frequent retro-orbital headaches associated with photophobia. Family history was strongly positive for migraine. CT showed opacity of the left sphenoid sinus. He was treated with propranolol and endoscopy with surgical drainage, followed by weekly injections for mold allergy. Headaches were relieved and propanolol was discontinued. Facial tenderness was absent in all cases, and nasal congestion occurred only in patient 3, with chronic headaches. (Ng Y, Butler IJ. Sphenoid sinusitis masquerading as migraine headaches in children. J Child Neurol Dec 2001;16:882-884). (Respond: Dr Ian J Butler, Department of Neurology, University of Texas-Houston Medical School, 6431 Fannin, Room 7.044, Houston, TX 77030).

COMMENT. Isolated sphenoid sinusitis in children may present with headaches resembling migraine. The typical symptoms of sinusitis, with nasopurulent discharge and fever, are frequently absent. The proximity of the sphenoid sinus to the cavernous sinus, and the course of the cranial nerves III, IV, V, and VI, adds to the potential for serious complications. The most common causes are an upper respiratory tract infection and allergies. Branches of the trigeminal nerve, ophthalmic and maxillary divisions, supply the sensory