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INFECTIOUS DISORDERS

EXANTHEM SUBITUM CNS COMPLICATIONS

Central nervous system (CNS) complications of exanthem subitum were analyzed in 21 infants examined at the Departments of Pediatrics and Neurology, Fujita Health University School of Medicine, Toyoake, Japan. The primary infection with human herpesvirus 6 was confirmed by isolation of the virus from the blood and/or a rise in antibody titers, and the virus DNA was detected in the cerebrospinal fluid of 6 infants, including 3 with encephalitis/encephalopathy (E/E). Convulsive seizures (15 generalized and 6 focal) occurred during the pre-eruptive stage of the illness, and persisted for more than 45 minutes in 7 infants. Four patients with E/E had prolonged focal seizures and loss of consciousness, abnormal EEGs and CT scans; 3 had a pleocytosis and elevated protein in the CSF. One developed epilepsy and one died. Infants without E/E recovered with no sequelae. (Suga S et al. Clinical and virological analyses of 21 infants with exanthem subitum(roseola infantum) and central nervous system complications. *Ann Neurol* June 1993; 33: 597-603). (Respond: Yoshizo Asano MD, Department of Pediatrics, Fujita Health University School of Medicine, Toyoake, Aichi 470-11, Japan).

COMMENT. Exanthem subitum is a common, usually benign, infectious disease of infants, characterized by a four day fever and a rash that appears after the fever subsides. Seizures may complicate the illness during the febrile stage and before the rash erupts. Human herpesvirus 6, recently identified as the causative agent, may rarely invade the CNS and cause encephalitis.

PEDIATRIC NEUROLOGY BRIEFS (ISSN 1043-3155) © 1993 covers selected articles from the world literature and is published monthly. Subscription requests (\$39 US; add \$12 for airmail outside North America) may be sent to: **Pediatric Neurology Briefs - J. Gordon Millichap, M.D., F.R.C.P.-Editor**, P.O. Box 11391, Chicago, IL 60611, USA. The Editor is Professor Emeritus at Northwestern Univ Medical School and Children's Memorial Hospital. **PNB** is a continuing education service designed to expedite and facilitate current scientific information for physicians and other health professionals.

A febrile seizure has long been recognized as the most common complication of exanthem subitum, occurring in 22 percent of 581 patients reported in 11 publications (Millichap JG. Febrile Convulsions. New York, Macmillan, 1968). Evidence for an encephalitic process and a direct involvement of the brain was lacking, and the degree of fever was considered sufficient to explain the frequent complication of convulsions. The present report demonstrates that seizures associated with exanthem subitum and fever are not always simple in type. They are occasionally prolonged and complex and a manifestation of encephalitis or encephalopathy.

E COLI HEMORRHAGIC COLITIS AND NEUROLOGIC SYMPTOMS

The neurological manifestations of hemorrhagic colitis in seven kindergarten children with *Escherichia coli* 0157:H7 infection are reported from the Saitama Children's Medical Center, Saitama, Japan. Generalized convulsions, occurring in 5 comatose patients, were intractable in 3 and required toxic doses of anticonvulsants for their control. Two patients died after 5 and 7 days of illness. Transient symptoms, delayed in onset for 2 to 6 weeks and after consciousness improved, included phrenic nerve paralysis in 1 patient, neurogenic urinary incontinence in 3, gaze nystagmus in 3, action tremor and oral dyskinesia in 1, and vertigo in 1 patient. Pyrexia and hemolytic uremic syndrome were seen only in patients with neurologic complications. Diarrhea, bloody diarrhea, and abdominal pain were more frequent and severe in this group compared to 7 patients with no neurologic symptoms who were admitted to hospital. Contaminated well water was the source of infection, and verotoxin-I (Shiga-like toxin I) was the likely cause of neurological symptoms. (Hamano S et al. Neurological manifestations of hemorrhagic colitis in the outbreak of *Escherichia coli* 0157:H7 infection in Japan. Acta Paediatr May 1993; **82**: 454-458). (Respond: S Hamano MD, Division of Neurology, S Children's Medical Center, 2100 Magome, Iwatsuki, Saitama 339, Japan).

COMMENT. Fever, high white blood cell count, young or old age, and prolonged antimotility drug use are risk factors for complications of this strain of *E. coli* infection. The neurologic and other complications of foodborne and waterborne infections, pollutants, and additives, are covered in Environmental Poisons in Our Food, Chicago, PNB Publishers.

SEVERE REACTIONS TO DTP VACCINE

Severe reactions experienced by 60 children within 48 hours of DTP immunization were reported from the UCLA School of Medicine, Los Angeles, CA. These included seizures in 40 or 66% (6 with fever >40.5°C), collapse episodes in 14, and persistent crying in 6. Subjects with encephalopathy were not included in the study. Those with seizures had a high rate of personal and