

# PEDIATRIC NEUROLOGY BRIEFS

## A MONTHLY JOURNAL REVIEW

J. GORDON MILLICHAP, M.D., F.R.C.P., EDITOR

Vol. 13, No. 7

July 1999

### INFECTIOUS DISEASES

#### MEASLES ENCEPHALOMYELITIS: VACCINE FAILURE RELATED

A 10-year-old boy diagnosed with acute disseminated encephalomyelitis (ADEM) and positive serology for rubella is reported from the Otaru Kyokai Hospital, Hokkaido, Japan. He was admitted with somnolence, headache, vomiting, fever, and quadriplegia, without exanthema. He had received MMR vaccine at 1 year of age, but without confirmation of seroconversion of antimeasles virus antibody. MRI findings of multifocal high-signal lesions in brain and spinal cord were compatible with ADEM. Recovery without neurologic sequelae or relapse followed treatment with methylprednisolone. Acute and convalescent serological examination, with immunoassays of IgM and IgG antibodies to measles virus, showed elevated titers at 5 weeks and a gradual decrease in titers at 7 and 13 weeks after onset. Failed MMR vaccination at 1 year of age could explain this occurrence of ADEM associated with a case of modified measles. (Nagai K, Mori T. Acute disseminated encephalomyelitis with probable measles vaccine failure. *Pediatr Neurol* May 1999;20:399-402). (Respond: Dr K Nagai, c/o JICA Kenya Office, PO Box 50572, Nairobi, Kenya).

**COMMENT.** Measles infection resulting from MMR vaccine failure is a potential cause of acute disseminated encephalomyelitis. Vaccine failure occurs in 5% of individuals vaccinated at 12 months of age or older (AAP Red Book, 1997;p345). A second dose, recommended at 4-6 years, at school entry, has decreased the risk of measles infection and related serious complications in the United States.

**MMR vaccine and autism.** A reported causal association between measles, mumps, and rubella (MMR) vaccination and autism is not supported by an epidemiological study of records of children in North Thames health districts, UK, analysed at University College, London. (Taylor B et al. *Lancet* June 12, 1999;353:2026-2029). The recent increase in the prevalence of autism and Asperger's syndrome was not related to the introduction of MMR vaccine.

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