

# PEDIATRIC NEUROLOGY BRIEFS

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## INFECTIOUS DISORDERS

### GUILLAIN-BARRE SYNDROME AND ORAL POLIO VIRUS VACCINE

An unexpected rise in the number of patients hospitalized with Guillain-Barre syndrome (GBS) was concomitant with a nationwide oral polio virus vaccine (OPV) campaign in Finland in 1985 and is reported from Clinical Neurosciences Institute of Occupational Health; Department of Neurology, University of Helsinki; Department of Virology, National Public Health Institute; and National Board of Health, Helsinki, Finland. The analysis was based on hospital records covering the population of 1.7 million. Seventy-one patients with GBS were recognized during the six year period and ten developed GBS within ten weeks after OPV vaccination. The mean onset occurred after 31 days. Meningeal signs and fever were absent and the electroneurography was not compatible with poliomyelitis. An increase in CSF protein was seen in all patients but one and the CSF white count varied from 0-15 (mean, 3). The study suggests that live attenuated polio virus may sometimes trigger the GBS (Kinnunen, E et al. Incidence of Guillain-Barre syndrome during a nationwide oral poliovirus vaccine campaign. Neurology August 1989; 39:1034-36).

COMMENT. The authors comment that there are no previous reports of the possible triggering role of oral polio vaccine for Guillain-Barre syndrome. The mean age in the OPV-associated GBS cases did not differ from that in the other cases (43.5 years, range 4-74 years). The report indicated that OPV should not increase the risk of GBS in children.

GBS is an immunopathologic reaction usually preceded and probably triggered by nonspecific infections of the respiratory or gastrointestinal tract, by cytomegalovirus, or Epstein-Barr virus. An increase of GBS was reported in the United States in 1976-77 within ten weeks after a massive A/New Jersey influenza vaccination campaign. Lyme disease is another infection that sometimes causes a Guillain-Barre syndrome in children and adults.

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