between onset and weakness. Supportive findings include: antecedent infection, CSF albumino-cytological dissociation, neurophysiological evidence of neuropathy, and presence of IgG anti-GT1a or anti-GQ1b antibodies. Brain MRI may be indicated to exclude brainstem ischemia, inflammation or brain tumor.

References.

- 1. Nagashima T, et al. Arch Neurol. 2007 Oct;64(10):1519-23.
- 2. Ropper AH. Arch Neurol. 1986 Nov;43(11):1150-2.

RECURRENT MILLER FISHER SYNDROME

Investigators from University of Siena, Italy, describe 2 children with recurrent Miller Fisher syndrome. Episodes occurred at age 11.5 and 13 years in Patient 1 and at age 8 and 13 years in Patient 2. Both patients responded to treatment with steroids. Patient 1 presented with diplopia, unsteady gait and clumsiness. Neurologic examination showed ataxia, hyporeflexia, and ophthalmoplegia. Treatment with iv immunoglobulin was effective initially, but failed to prevent progressive weakness during the second attack that subsequently responded to steroid therapy. Patient 2 presented with paresthesia of hands and diplopia, ataxia, paresis of 6th and 7th cranial nerves, muscle weakness, and hyporeflexia. Recovery from both the initial and second attack followed steroid therapy. (Grosso S, Verrotti A, Tei M, Cornacchione S, Giannini F, Balestri P. Recurrent Miller Fisher syndrome in children. **Pediatr Neurol** 2014 Mar;50(3):269-71).

COMMENTARY. Recurrent Miller Fisher syndrome [1] is rare in childhood, and the second attack may be more aggressive and resistant to therapy. Steroids may be indicated if iv immunoglobulin is ineffective [2].

References.

- 1. Fisher M. N Engl J Med. 1956 Jul 12;255(2):57-65.
- 2. Toru S, et al. Muscle Nerve. 2012 May;45(5):763-4.

PARANEOPLASTIC DISORDERS

PARANEOPLASTIC DISORDERS AND OVARIAN TUMORS

Researchers in Chang Gung University, Kaohsiung, and National Cheng Kung University, Tainan, Taiwan, assessed the prevalence and spectrum of paraneoplastic neurological disorders (PND) in children with benign ovarian tumor and the long-term outcome. The charts of 133 female patients below 18 years of age diagnosed with a pathologically proven benign ovarian tumor, Jan 1993 – Dec 2010, were reviewed, mostly mature teratoma. Six patients (4.5%) had neuropsychiatric manifestations, the majority (5) with onset after age 10 years. Depression or low mood, headache, mutism, hypoventilation, seizures, hallucination, vomiting and hypersalivation were the most common symptoms. NMDAR encephalitis in 2 patients and acute disseminated encephalomyelitis in 1 partially resolved after tumor removal and immunotherapy. One patient not receiving immunotherapy had neurological sequelae and long ICU stay. (Hsu