

(Respond: Dr Howard W Sander, Weill College of Medicine, Cornell University, New York, NY).

COMMENT. The tapeworm is responsible for 10 percent of seizure admissions to emergency departments of large urban hospitals in New Mexico and California. Cysticercosis is the most common parasitic disease of the CNS worldwide, and the leading cause of late-onset epilepsy in many developing countries (Maguire JH. Tapeworms and seizures – treatment and prevention. *N Engl J Med* Jan 15, 2004;350:215-217). A double-blind, placebo-controlled trial of albendazole (800 mg/day) and dexamethasone (6 mg/day), for 10 days in 60 adult patients with cysts, reduced the number of seizures with generalization during the 2<sup>nd</sup> to 30<sup>th</sup> month after treatment (Garcia HH, Pretell EJ, Gilman RH et al. A trial of antiparasitic treatment to reduce the rate of seizures due to cerebral cysticercosis. *N Engl J Med* Jan 15, 2004;350:249-257). A 41% reduction in the number of partial seizures was not significant, but a 67% reduction of seizures with generalization was significant.

## HEREDITARY ATAXIAS

### **FEBRILE EPISODIC ATAXIA WITH NOVEL MUTATION**

An episodic ataxia type 2 (EA2) kindred with ataxic spells induced by fever or high environmental temperature and a novel *CACNA1A* mutation were identified and reported from the Universities of Mississippi and Minnesota. The proband was a 75-year-old woman with episodes beginning in childhood of ataxia, vertigo, weakness, and migraine lasting several hours, and provoked by fever, heat, stress, or sudden movements. The proband's father and sister were similarly affected. In 11 patients with episodic ataxia, age of onset varied from infancy to the twenties. Episodes ranged from daily to 2 annually, and lasted minutes to days. They were sometimes accompanied by headaches, diplopia, nausea, and vertigo. Those with the mutation had interictal cerebellar deficits. Early cerebellar dysfunction in EA2 results from the mutations in the neuronal calcium-channel gene and not a degenerative process. (Subramony SH, Schott K, Raike RS et al. Novel *CACNA1A* mutation causes febrile episodic ataxia with interictal cerebellar defects. *Ann Neurol* December 2003;54:725-731). (Respond: Dr Christopher M Gomez, Box 295, Departments of Neuroscience and Neurology, 420 Delaware St SE, Minneapolis, MN 55455).

COMMENT. Episodic ataxia type 2 (EA2) is a dominantly inherited disorder, characterized by spells of ataxia, dysarthria, vertigo, and migraine, associated with mutations in the neuronal calcium-channel gene *CACNA1A*. Attacks are precipitated by stress, exercise, or alcohol. Some patients have nystagmus between spells and some develop a progressive ataxia in adulthood. Twenty one *CACNA1A* mutations have been described in EA2. The above kindred study adds a further mutation and clinical syndrome in which ataxic spells are precipitated by fever or overheating, and patients develop signs of cerebellar dysfunction between attacks. Other neurologic disorders caused by mutations in the *CACNA1A* gene are the dominantly inherited progressive spinocerebellar ataxia (SCA6), and familial hemiplegic migraine.