

**Canadian Association of Neuropathologists
L'Association Canadienne des Neuropathologistes**

CASE No 11

L.-N. HAZRATI¹, S. WEISS², J. RUTKA³ and C. E. HAWKINS¹ (¹Hospital for Sick Children, Department of Paediatric Laboratory Medicine, Division of Pathology, Departments of ²Neurology, and ³Neurosurgery, University of Toronto, Toronto, Canada)

This 5 year old left handed boy is known to have had epilepsy since the age of one year. His seizures occur when he is awakening from sleep and after naps. He makes a gagging sound and then appears confused and only partially responsive to exterior stimulation. Tonic-clonic twitches of the right arm have been noted occasionally but there has never been any generalized seizure activity or loss of consciousness. Within a few seconds of the seizure, he is described to develop complete weakness of the right side.

He was born at term to a 17-year old mother who gave him away for adoption at birth. There are no reports of pre-natal, intra-partum or immediate post-natal complications except that it is mentioned that the mother might have been occasionally drinking alcohol and smoking marijuana during her pregnancy. The boy has had normal developmental milestones, but some mild language developmental delay has been noted. Many anti-epileptic regimens have been tested over the years without notable impact on his seizures. Electrophysiological studies showed localization of the seizure activity to the left side of the brain. Imaging of the brain did not disclose any structural anomalies. He underwent craniotomy and extensive surgical resection of the left frontal and temporal lobe areas.

Material Submitted: H&E section of cerebral cortex

Question: Etiology of seizure?