Canadian Association of Neuropathologists
L'Association Canadienne des Neuropathologistes

CASE No 7

K. DAKIN-HACHE[1], D.B. CLARKE[2] and A.S. EASTON[1,2] (Departments of [1]Pathology, and [2]Neurosurgery, Dalhousie University, Halifax, Nova Scotia)

This gentleman, born January 1969, had suffered from longstanding epilepsy prior to surgery in April 2007. His first seizure occurred at 18 months. Obstetric history included threatened abortion at 3 months, with delivery at 33 weeks. At birth he was apneic and required supplemental oxygen. Developmental milestones were delayed. Daily partial seizures developed by mid-childhood. The most frequent seizure involved aphasia, twitching of the right face, limp right arm and leg, and a tendency to fall to the right. The second type involved sudden staring spells with inability to hear or comprehend. There was no family history of epilepsy or CNS disease. At age 16 CT scan revealed a mass in the left lower rolandic area. Craniotomy was performed at this time, but electrical stimulation over the lesion produced right finger and hand movement, preventing radical resection. A biopsy was taken, and pathological diagnosis given as fibrillary astrocytoma, grade 1-2. Consultation in 2001 reported oligodendroglial hypertrophy. Functional MRI in 2004 suggested that the lesion escaped both the speech centre (anterior to the mass) and right hand motor areas (posterior). In April 2006 therefore, a second craniotomy was performed, and functional inactivity of the lesional tissue confirmed intraoperatively. A complete resection was carried out. Since this time, the patient has experienced greatly improved seizure control. Eleven pale firm tissue fragments, up to 3.5 cm in greatest dimension were submitted for pathological examination.

Material submitted: H&E stained section of the mass

Question: Differential diagnosis?