Clinical History: A previously well 18-year-old man presented with a 2 month history of headache, progressive clumsiness and difficulty walking. Neurological examination documented nystagmus, dysarthria, and ataxia. MRI of the brain revealed multiple T2 hyperintense lesions throughout both cerebellar hemispheres and the cerebellar folia enhanced following gadolinium administration with a leptomeningeal pattern. CSF analysis revealed cellular pleocytosis (69 WBC/hpf (lymphocytic predominance) with mild elevation of protein (0.468 g/L). CSF microbiological studies, flow cytometry and cytology were negative. CT chest, abdomen and pelvis, and testicular ultrasound were normal. Over the ensuing 3 days the patient's cognitive status deteriorated and repeat MRI showed worsening of the cerebellar lesions. Given the non-diagnostic investigations and worsening clinical condition, biopsy of the left cerebellum was undertaken to investigate for potentially treatable conditions including lymphoma.

Material submitted: H&E section of left cerebellar biopsy

Points for discussion: 1. Diagnosis
                           2. Pathogenesis