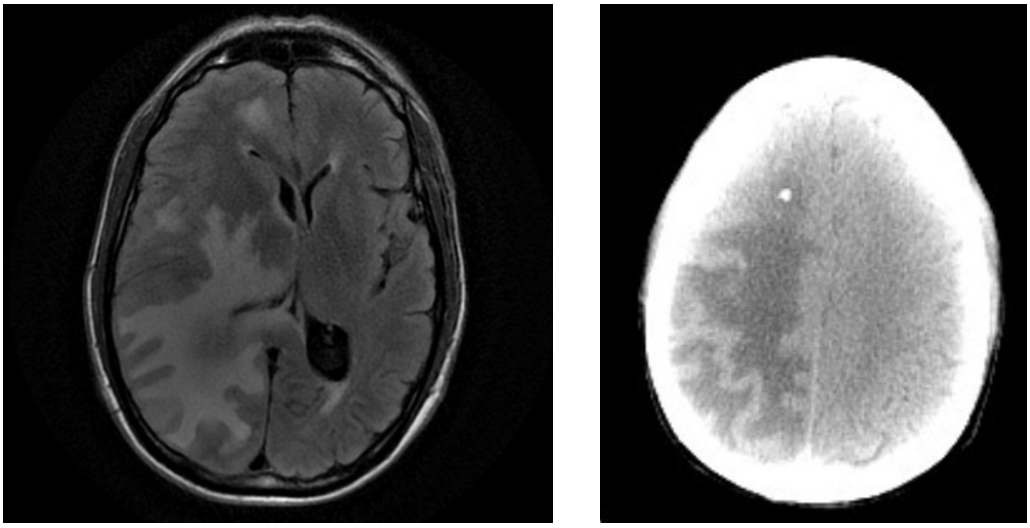
57th ANNUAL DIAGNOSTIC SLIDE SESSION 2016.

CASE 2016-5

Submitted by: Derek H Oakley[1], Bruce S Tronic[2], Ivana Vodopivec[1], CA Perugino[1], Nagopal Venna[1], John H Stone[1] and E Tessa Hedley-Whyte[1].
[1] Massachusetts General Hospital, 55 Fruit Street, Boston, MA 02114
[2] Lahey Clinic, 41 Mall Road, Burlington, MA 01805

Clinical History:
This middle aged man was admitted after he fell to his knees while getting out of bed when his legs gave way. His past medical history included hypertension, uveitis, bilateral macular degeneration status post interferon treatment, and chronic progressive kidney disease (stage 4, status post 2 biopsies with results unavailable on this admission). Over the previous year he had had progressive memory loss, malaise, and intermittent confusion and vision loss. A CT scan, 4 months earlier, had shown multiple punctate areas of calcification and hemorrhage with surrounding vasogenic edema in the bilateral frontal and right parietal white matter.
CSF: myelin basic protein was 10.6; JC virus, flow cytometry and VDRL were within normal limits. CSF IgG index was slightly elevated. Repeat MRI 2 months prior to presentation showed "progression of complex T2 hyperintensity" associated with focal infarction in right parietal white matter". "Complete immunologic and vasculitic workup had been negative". He had never smoked. He had travelled extensively in Europe.
CT on admission showed edema involving white matter in right frontoparietal region with mass effect and a 12 mm midline shift. The clinical differential diagnoses included infectious, TB, syphilis, viral, and toxoplasmosis, sarcoid, vasculitis, neoplastic and demyelination (PML). The right-sided subcortical brain lesion was biopsied twice over the next two weeks with similar histological findings. The section comes from the second brain biopsy.



MRI: T2 sequence (left) and CT (right)

Material submitted:

- One H&E stained slide, virtual

Points for discussion:

1. Diagnosis
2. Pathogenesis and prognosis