

54th ANNUAL DIAGNOSTIC SLIDE SESSION 2013

CASE 2013-6

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Clinical History: A 30 year-old man with a history of recent treatment for a dental abscess presented to an outside hospital with sore throat, 103⁰ F fever, and neck stiffness. He was treated with antibiotics for *Streptococcal* pharyngitis. The following week, he presented with weakness of the left upper and lower extremities and left facial droop. Further questioning revealed a two-month history of headache. Head CT revealed a mass in the anterior limb of the right internal capsule with mild contrast enhancement. MRI (Figure 1) showed a 3.5 x 3.0 cm irregularly enhancing mass lesion involving the right basal ganglia with a 0.6 cm right-to-left shift of the midline. The clinical differential diagnoses at this point were glioma vs. lymphoma vs. infectious process. He was started on broad spectrum antibiotics and Decadron due to the midline shift. An MR-guided stereotactic biopsy was performed. Special stains for bacteria, fungi, and acid-fast bacilli, as well as immunohistochemical stains for *Toxoplasma gondii*, Cytomegalovirus, Epstein-Barr virus, and HSV- I and HSV-II revealed no organisms.

Decadron was stopped due to concern for infectious etiology. Cultures remained negative, but the patient developed lethargy. Nineteen days after the initial imaging studies, a repeat MRI showed significant progression of the lesion with increased contrast enhancement, edema, and subfalcine and uncal herniation. Two days after this MRI, a second brain biopsy was performed, showing changes similar to the first biopsy. B-cell and T-cell gene rearrangement studies, requested by the clinicians, were negative for clonality. Antibiotics were continued, and Decadron was restarted. Ten days after the second biopsy, a follow-up MRI showed marked decrease in the abnormal areas of enhancement and decreased mass effect. The patient was discharged to an outside rehabilitation facility pending ongoing evaluation.

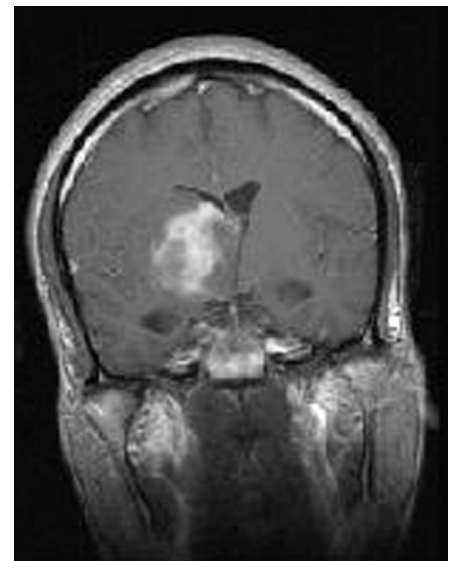


Figure 1. MRI with contrast at initial presentation

Material submitted:

1. Virtual H&E stained glass slide from the first biopsy of the right basal ganglia lesion
2. Digital MRI brain image

Points for discussion:

1. Differential diagnosis
2. Treatment