DIAGNOSING MULTINODULAR AND VACUOLATING NEURONAL TUMOR (MVNT) AFTER A POSITIVE HOFFMANN SIGN: A CASE REPORT

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CASE DESCRIPTION

- A 25 year old female presented with two years of diffuse, constant muscle cramps that began gradually after no known trauma.
- She denied falls, numbness, tingling, or weakness of extremities.
- On exam, she was alert and oriented. Strength was full in upper and lower extremities without tenderness to palpation, and sensation was intact. Gait was normal with heel- and toe-walking intact**. A Hoffmann reflex was elicited only on the left**. Babinski was downgoing bilaterally with no clonus. Lhermitte's sign was negative.
- MRI brain without contrast showed **grouping of multiple small discrete nodules in the subcortical and deep white matter of the right parietal lobe** with associated normal appearing cortex, consistent with MVNT.
- EEG showed subtle polymorphic focal slowing over the right temporal region, and no epileptiform activity.
- Patient was referred to Neuro-Oncology, who recommended MRI surveillance without surgical intervention.
- She was started on duloxetine and underwent 12 sessions of acupuncture with improvement in her pain.

DISCUSSION

- MVNT is a newly recognized central nervous system (CNS) tumor first described in 2013.
- It is comprised of subcortical multiple nodules of tumor with conspicuous vacuolation; they appear hyperintense on FLAIR and T2-weighted MRI, and are located along the inner cortex without mass effect or edema.

IMAGING

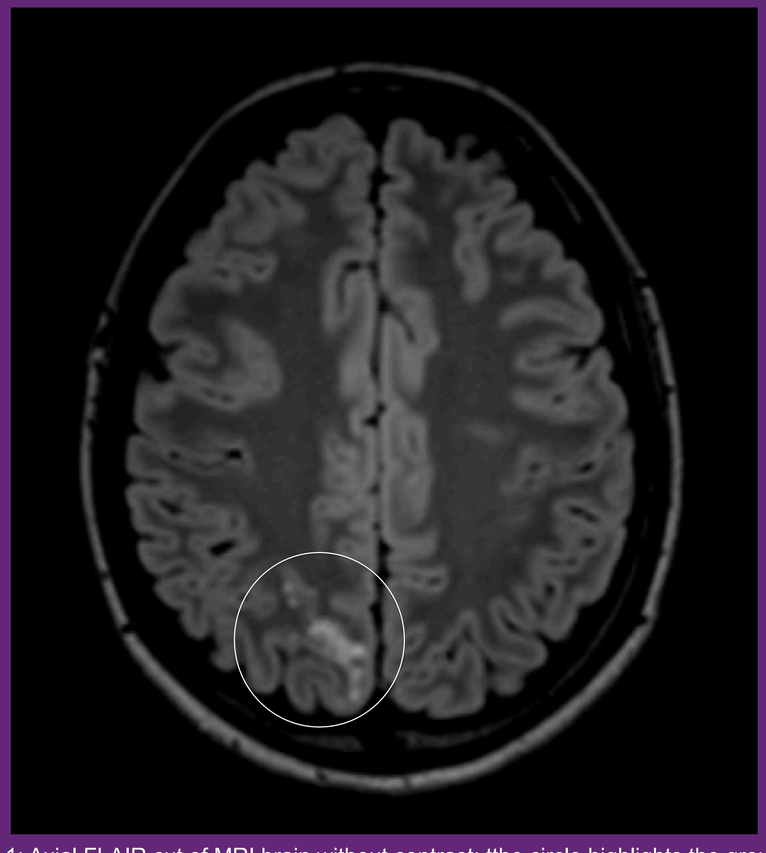

Figure 1: Axial FLAIR cut of MRI brain without contrast; tthe circle highlights the grouping of multiple small discrete nodules in the right parietal lobe with associated normal appearing cortex, consistent with MVNT

DISCUSSION, CONT.

- MVNT appears to be a benign tumor that is usually an incidental finding and may be followed with MRI surveillance; however, there are case reports describing symptomatic patients who present mostly commonly with seizures, but also headaches, paresthesias, or vertigo.
- To our knowledge, this is the first documented case report of MVNT in the rehab literature.

CONCLUSION

This case underscores the importance of a thorough physical exam, especially in the setting of a nonspecific complaint; the patient's unilateral positive Hoffmann sign was the only sign of her underlying rare CNS tumor.

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