## Teaching Video NeuroImages

#### Neurology<sup>®</sup> Resident & Fellow Section



# Vignette

• A 51-year-old man presents with vomiting, unsteadiness and noticed he could not look left or right.

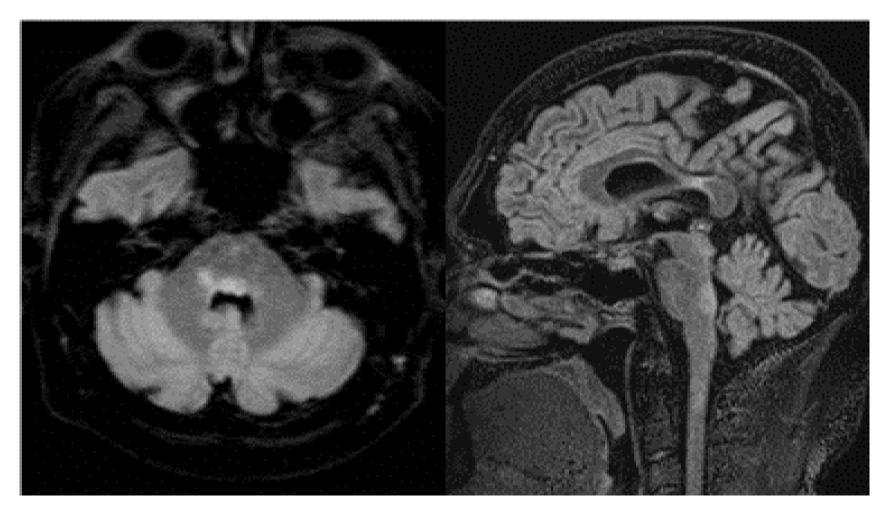


# Video



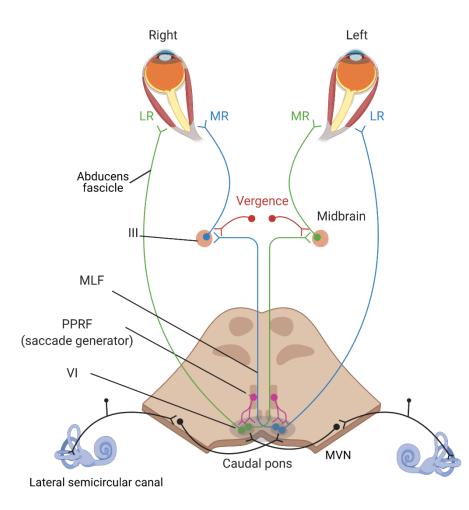


#### Image





### Image





# Bilateral horizontal gaze palsies with vertical ocular dysmetria from a demyelinating lesion of the pontine tegmentum

- Impaired bilateral conjugate horizontal saccades can occur from bilateral abducens nuclear lesions.
- Each abducens nucleus is a horizontal gaze center and innervates the ipsilateral lateral rectus through the abducens fascicle, and the contralateral medial rectus via the medial longitudinal fasciculus. Thus, bilateral lesions of the abducens nuclei cause complete horizontal gaze paresis.
- The patient also exhibits ocular dysmetria.
- Cogan described ocular dysmetria from lesions of the cerebellum or its immediate connections. This presents with overshoot (less commonly undershoot) movements of the eyes, with fast, small amplitude corrective saccades of diminishing size until reaching the visual target. The involvement of the middle cerebellar peduncle is the likely cause for this sign in our patient.

