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Clinical Image

Bilateral Internuclear Ophthalmoplegia in a Middle Aged Male due to Infarct

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1. Clinical Image

Internuclear ophthalmoparesis (INO) is a specific gaze abnormality characterized by impaired adduction of the affected eye with abduction nystagmus of the contralateral eye. It results from a lesion in the medial longitudinal fasciculus (MLF) in the dorsomedial brainstem, tegmentum of either the pons or the midbrain [1]. The INO can be unilateral or bilateral and can be an isolated finding or may be associated with other brainstem signs and symptoms.

A 42-year-old gentleman without any known comorbidities presented with sudden onset diplopia and restriction of eye movements towards the nasal side. It was associated with gait ataxia and slurring of speech. On examination patient was conscious alert and oriented. Patient had impaired adduction of both eyes with bilateral contralateral abducting nystagmus (Figure 1) His convergence was preserved. He had subtle bilateral cerebellar signs and his speech was slurred. MRI brain showed acute infarct in mid brain (Figure 2).

In one review of INO, some of the most common causes included: Infarction in 38% cases which were mostly unilateral, multiple sclerosis in 34% which were mostly bilateral and some unusual causes included trauma, infection, tumor, iatrogenic injury, hemorrhage and vasculitis [2]. Thus stroke usually produces unilateral INO. Most patients with INO with demyelinating, infectious or traumatic causes completely recover whereas prognosis in patients with cerebrovascular accidents are less favourable [2].

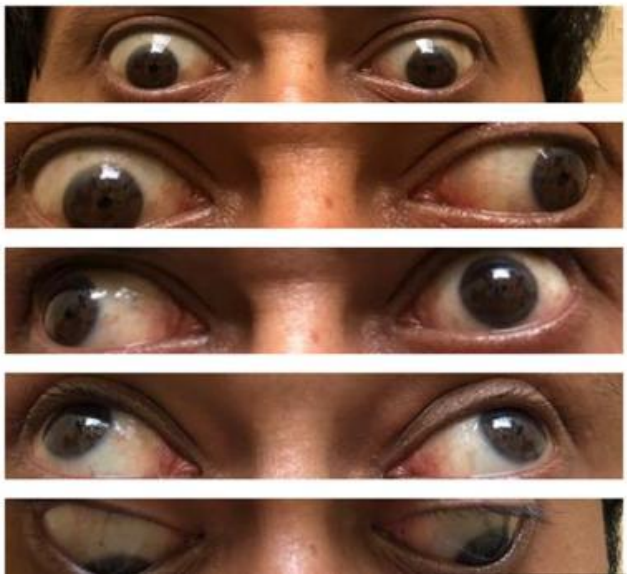

Figure 1: Shows Bilateral adduction paresis in both right and left horizontal gaze.

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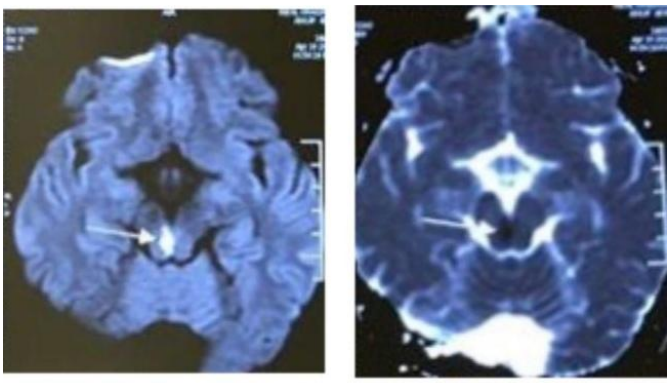

Figure 2: Diffusion restriction in mid brain with corresponding ADC reduction suggestive of acute infarct.

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