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CASE SERIES OF FACIAL COLLICULUS SYNDROME

Radio-Diagnosis

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ABSTRACT

Background- The facial colliculus syndrome is a rare entity[1] & etiology of facial colliculus lesions varies by age[2]. Either of the Abducens nucleus, the 7th nerve that loops around the Abducens nucleus, paramedian pontine reticular formation (PPRF) & the medial longitudinal fasciculus (MLF) can be involved causing vivid signs and symptoms.[2] The literature has limited reference on Facial colliculus syndrome with various etiologies. The authors have made an attempt to highlight the findings which could be related to the Facial colliculus syndrome. **Case presentation-** The Clinical & imaging features of all the 3 patients showed signs of Facial colliculus in the dorsal pons leading to facial weakness & horizontal gaze palsy.1 out of 3 patients was hypertensive and had previous history of neurological deficit. All 3 patients were found to have ischemic etiology & 1 patient on initial neurological examination mimics likes bell's palsy & was misdiagnosed on initial neurological examination. **Conclusion-** Due to unusual presentations, FCS often can be mistaken as bell's palsy. So, patients complaining of facial weakness with or without diplopia, a differential of facial colliculus syndrome should be considered & MRI brain plain and contrast to localize & characterize the lesion should be done.

KEYWORDS

Paramedian pontine reticular formation (PPRF), Medial longitudinal fasciculus (MLF), Facial colliculus, Bell's palsy

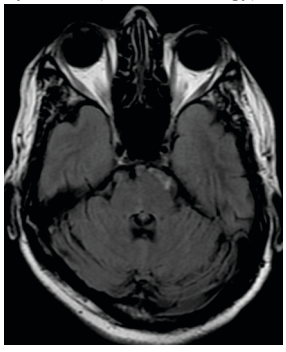
INTRODUCTION

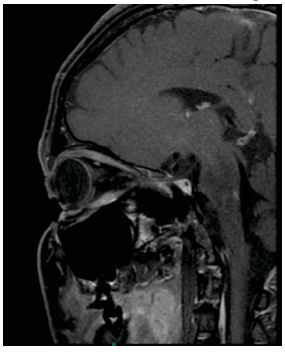
The facial colliculus syndrome is a rare entity [1] & etiology of facial colliculus lesions varies by age [2]. Clinical signs & symptoms are determined by the structures involved, especially the Abducens nucleus, the 7th nerve that loops around the Abducens nucleus, paramedian pontine reticular formation (PPRF) & the medial longitudinal fasciculus (MLF) [2]. The literature has limited reference on Facial colliculus syndrome with various etiologies. The authors have made an attempt to highlight the findings which could be related to the Facial colliculus syndrome.

CASE DISCUSSION

CASE 1.)

A 39-year male presented with sudden onset horizontal diplopia & dizziness. On Examination, limitation of adduction in right eye with abducting nystagmus of left eye (suggestive of right internuclear ophthalmoplegia. On MRI brain, a small area of diffusion restriction was seen involving the right facial colliculus which was isointense on T1 and hyper intense on T2 weighted images. On post contrast study it showed mild enhancement. So a diagnosis of Facial Colliculus Syndrome (ischemic etiology) was made on the basis of MRI findings.



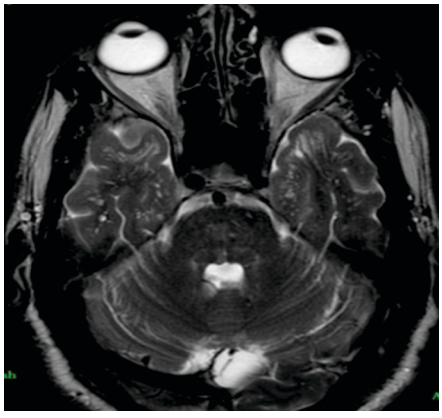


CASE 2.)

A 60 years' male patient presented with complaints of headache & tingling sensation on right side of face. He was admitted for suspected CVA episode. On examination, right sided facial palsy was noted. Ocular Examination revealed right sided horizontal gaze palsy. DWI showed a subtle diffusion restriction in the right dorsal pons at the floor of fourth ventricle in the region of facial colliculus which was hyper intense on FLAIR/T2 sequences. So it was diagnosed as facial colliculus syndrome due to ischemic etiology.

CASE 3.)

A 60-year-old hypertensive male presented with sudden episode of vertigo & right sided facial weakness. Initial Neurological examination revealed lower motor neuron type of left facial nerve palsy & was treated like bell's palsy. No significant improvement was noted in vertigo even after 2 days of steroid therapy & anti vertigo medication. Repeat throughout neurological examination was done & revealed left sided horizontal gaze palsy. Later MRI was advised.. MRI showed diffusion restriction involving right facial colliculus which was hyper intense on T2/FLAIR sequences. So it was diagnosed as Facial colliculus syndrome (ischemic etiology) and was treated accordingly.



DISCUSSION

The facial colliculus syndrome is an uncommon entity [1] & etiology of facial colliculus lesions varies by age [2]. Clinical signs & symptoms are highly variable & determined by the structures involved. In young age;

tumours, demyelination & infection while in elderly people, ischemia is the most common cause. [2,3]

RESULTS

Facial colliculus syndrome linked with ischemic etiology may be overlooked or often misdiagnosed. Most of patients undergoes steroid therapy & symptoms goes on worsening leading to the unwanted episode of re-infract. Hence an alert skillful radiologist may pick up the characters of the lesion & association of this with clinical signs. So, whenever patient presents with diplopia with or without facial weakness, facial colliculus syndrome should be considered in the differential diagnosis.

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