An Approach to Medical Ophthalmoplegia

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None

Learning Objectives

• Formation of a Systematic approach to Anatomical Localization based on clinical and radiological clues

• Acquisition of the Skill of recognition of etiology, diagnosis and management of patients of Ophthalmoplegia
Key Message

• Is there a lesion?
• Where is the lesion?
• What’s the lesion?

Gordon Holmes (1905)
OPHTHALMOPLEGIA

Define symptoms - ‘Diplopia’ ‘Pain’ ‘Ptosis’ ‘Proptosis’

Mono-ocular                  Binocular
Horizontal separation         Vertical separation
False Image                  True Image

Effect of Head Tilt
Effect of distance to target
Effect of gaze direction
Fluctuations
WHY WE SEE THIS?

[Diagram showing various nerves and ganglia related to vision, including the V nucleus, superior salivatory nucleus, VII motor nucleus, Carotid artery, ciliary ganglion, long ciliary nerve, lacrimal nerve, frontal nerve, conjunctival afferents, and afferent and efferent fibers.]
PTOSIS

Correctable

Diplopia

Pupillary size and reaction

Symmetricity

Laterality

Proptosis

Pupillary size and reaction

Correctable

Diplopia

Symmetricity

Laterality

Proptosis
12 M

- Low grade fever 10 d
- Headache and Vomiting 10 d
- Diplopia 10 d

Bilateral, Asymmetrical, Non fluctuating ptosis with Diplopia

The Eye Opener: Finding and Targeting the Midbrain Lesion
65 F
Sudden onset Severe Headache
Altered Sensorium 4 months back
Noted Right eye ptosis and diplopia when conscious

Unilateral, Complete, Non correctable, Pupil Involving
55 M

Ptosis and Diplopia 2 weeks duration

Unilateral, Non correctable ptosis, Pupil Sparing
40 M

Ptosis and Diplopia 2 weeks duration

Unilateral, Complete, Non correctable, Mild Proptosis
<table>
<thead>
<tr>
<th>Symptom</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Left hemi-cranial headache and Double vision</td>
<td>8 weeks</td>
</tr>
<tr>
<td>Drooping of left eyelid</td>
<td>7 weeks</td>
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<td>Improved partially with oral steroids</td>
<td>6 weeks back</td>
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**O/E:**
- Left eye- complete ptosis and opthalmoplegia; Pupil spared
- Left V1, V2 decreased sensation

**Unilateral, Complete, Non correctable, Mild Proptosis, Trigeminal**
29 M

Left peri orbital and retro-orbital pain 2 d
Ptosis LE 1 m
Visual loss LE 1 m
Double vision 2 d

Unilateral, Complete, Non correctable, Mild Proptosis
25 M

Photophobia
Blurred Vision
Dilated Left Pupil 15 d
**DIPLOPIA** - Vertical; Downgaze (Walking down the stairs)

<table>
<thead>
<tr>
<th>Superior oblique</th>
<th>Intorsion</th>
<th>Abduction</th>
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**HYPERTROPIA**

- Limited depression on adduction

**Head**

- Takes a posture in direction of SO

**Turns to Opposite side**

**IN THE SETTING OF THIRD NERVE PALSY**
12 F

Recurrent episodes of Headache with double vision

Are some ophthalmoplegias migrainous in origin?

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20 F
Fever, Headache, Vomiting, Diplopia 1 m
Normal Visual acuity and fundus examination
Conclusion

- Ophthalmoplegia: Clues and Diagnostic Pearls

- Anatomical localization is the ‘Key’

- Recognition of etiology: Detailed History and Clinical examination
Thank you