

65 year-old female presents after head trauma (incidental finding)

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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

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Exophthalmos



Interzygomatic line

Exophthalmos

Definition

- Forward protrusion of the globe with respect to the orbit
- = ocular “proptosis”
- Most authors consider ocular enlargement, e.g myopia to be “pseudoproptosis,” others use interchangeably

Exophthalmos

Symptoms

- Cosmetic
- Inability to close eyelids resulting in corneal irritation, even ulceration
- Sign of underlying process, e.g. Graves' disease
- Often an incidental finding

Exophthalmos

Imaging evaluation

- Several measuring techniques,
Best to measure the distance from the interzygomatic line:
 - Section should be parallel to optic nerve & include lens w/ eyes open & looking forward
 - NL < 23 mm to the anterior surface of the globe
 - < 10 mm to posterior surface of the globe
 - Asymmetric bulging +2 mm = unilateral proptosis

Exophthalmos

Broad differential for etiology of exophthalmos:

- Thyroid orbitopathy (most common, up to 80% of bilateral cases)
- Cushing's syndrome
- Obesity
- Infection (i.e. orbital cellulitis)
- Tumor
- Trauma (i.e. retro-orbital hematoma)
- Vascular lesions
- Orbital pseudotumor
- Normal Variant / Familial

References

1. The radiological investigation of proptosis. Br J Radiol. 1970;43 (505): 1-18. Br J Radiol (citation) - doi:10.1259/0007-1285-43-505-1 - Pubmed citation.
2. Radiopaedia.org
3. Statdx.com
4. American Academy of Ophthalmology
<https://www.aao.org/bcscsnippetdetail.aspx?id=0fc0c2a1-4f5f-455d-942e-164083d19860>
5. Axial myopia. A neglected cause of proptosis.
<https://www.ncbi.nlm.nih.gov/pubmed/637760>
6. Britannica: <https://www.britannica.com/science/exophthalmos>