

Orbiting the uncommon: ectopic fibrous dysplasia of the extraocular musculature

Orbitando o incomum: displasia fibrosa ectópica da musculatura extraocular

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How to cite:

Soares VF, Fontoura DR, Alves Júnior SF. Orbiting the uncommon: ectopic fibrous dysplasia of the extraocular musculature. Rev Bras Oftalmol. 2026;85:e0077.

doi:

<https://doi.org/10.37039/1982.8551.20260077>

Keywords:

Fibrous dysplasia, Strabismus, Proptosis

Descritores:

Displasia fibrosa, Estrabismo, Proptose

Received on:

May 8, 2026

Accepted on:

June 4, 2026

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Conflict of interest:

no conflict of interest.

Financial support:

no financial support for this work.

Data Availability Statement:

the datasets generated and/or analysed
during the current study are included in the
manuscript.

Associate Editor:

Ricardo Augusto Paletta Guedes
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A 60-year-old woman with hypothyroidism, hypertension, and dyslipidemia presented with left-sided strabismus, diplopia, occasional ocular pain, and progressive left-sided proptosis over two years (Figure 1). Computed tomography (CT) revealed a well-circumscribed, intraorbital mass with ground glass appearance, suggestive of fibro-osseous lesion, unconnected to the adjacent bony structure (Figure 2). Surgical excision was performed, and histopathological analysis confirmed the diagnosis of fibrous dysplasia (Figure 3).



Figure 1. Clinical photograph. Left-sided proptosis.



Figure 2. Orbital CT at coronal plane, bone window. A retrobulbar expansile lesion in the left orbit, centered on the superior extraocular muscle complex, with a multilobulated ground glass appearance and without infiltration of the adjacent bony structure.

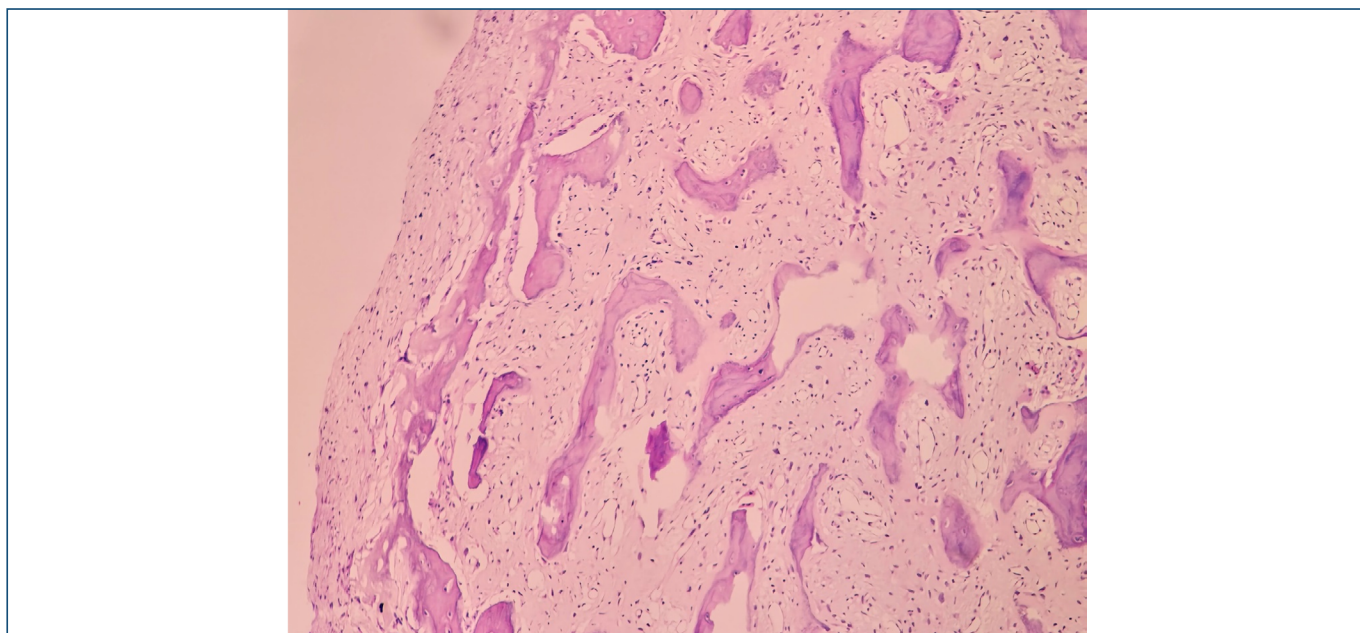


Figure 3. H&E-stained histologic section; 250× magnification. Well-demarcated lesion characterized by irregular bony trabeculae within a fibrous stroma composed of cells without prominent cytologic atypia.

Fibrous dysplasia is a sporadic, non-hereditary genetic disorder resulting from a mutation in the *GNAS1* gene located on chromosome 20, histologically characterized by the replacement of normal bone with fibro-osseous tissue.⁽¹⁾ The clinical presentation is variable and depends on the size and extension of the lesion and the relation to adjacent organs and structures. Management varies according to symptoms and lesion growth, with some patients requiring only observation while others may need pharmacological and/or surgical treatment.⁽²⁾

To our knowledge, only one other case of ectopic intraorbital fibrous dysplasia has been reported in scientific literature³. In that case, the authors speculated that the lesion originated from ectopic embryonic osteogenic cells or via differentiation of pluripotent stem cells within orbital adipose tissue – a rationale that may be applicable to the case described in our report.

AUTHOR CONTRIBUTION

Vítor Fonseca Carvalho Soares: drafting the manuscript, acquisition of data and curation; Débora Rodrigues Fontoura: histopathological examination and interpretation of findings, preparation of the figure keys; Sérgio Ferreira Alves Júnior: revision of the manuscript and oversight.

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