Multimodal Imaging in Type 2 Macular Telangiectasia

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CASE REPORT

- 71-year-old female
- Presented with prolonged low visual acuity in the right eye (OD) and prior ranibizumab injections.
- Comorbidities: hypertension, asthma, dyslipidemia
- History of bilateral phacoemulsification
- Best-corrected visual acuity was 20/200 OD and 20/30 in the left eye (OS).
- Fundoscopic examination:characteristic telangiectatic alterations and pigmentary changes temporally to the fovea, with macular atrophy in the OD.

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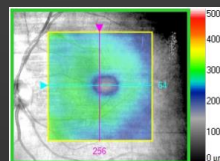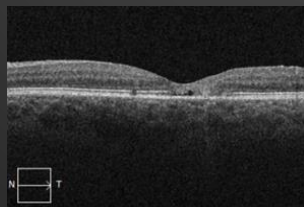RETINA 2024
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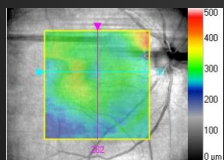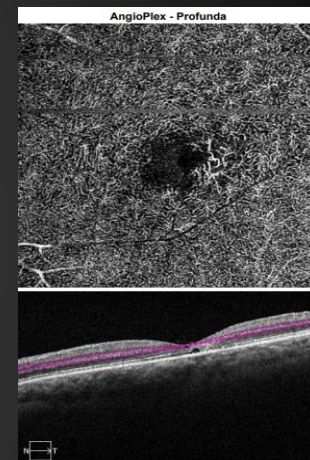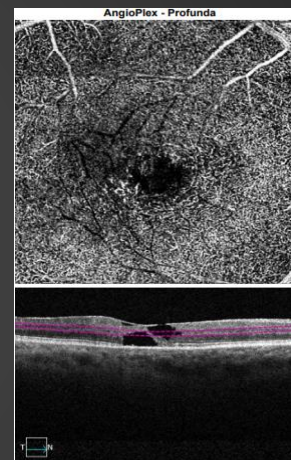UMA INSTITUIÇÃO FELUMA

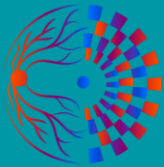# MULTIMODAL IMAGING

- Macular OCT:

ILM drape and photoreceptor layer atrophy in the OD

Ellipsoid zone interruption and inner layer atrophy in OS.

- Fluorescein angiography / OCT angiography:

Delimitation of telangiectatic vessels (FA: late phase / OCT-A: seen in the deep plexu)

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DISCUSSION

- MacTel type 2 is an idiopathic disorder characterized by capillary abnormalities and retinal layer loss.
- Diagnosis relies on clinical examination and multimodal imaging, including OCT, OCT-A, fluorescein angiography and fundus autofluorescence.
- FAF detects areas of functional changes, while fluorescein angiography delineates leaking telangiectatic vessels.
- OCT reveals retinal layer loss and cystic cavitations, with pronounced degeneration often resulting in an "ILM drape" appearance.
- Multimodal imaging aids in understanding disease pathophysiology, progression and complications, enhancing clinical management and outcomes

REFERENCES

1. Powner MB, Gillies MC, Tretiach M, et al. Perifoveal Müller cell depletion in a case of macular telangiectasia type 2. Ophthalmology. 2010;117(12):2407-2416. doi:10.1016/j.ophtha.2010.04.029
2. Wu L, Evans T, Arevalo JF, et al. Idiopathic Macular Telangiectasia Type 2: Pathogenesis and Therapeutic Approaches. Prog Retin Eye Res. 2020;100904. doi:10.1016/j.preteyeres.2020.100904
3. Mimoun G, Azan E, Campolmi N, et al. [Photodynamic therapy with verteporfin for type 2 idiopathic macular telangiectasia]. J Fr Ophtalmol. 2010;33(1):21-27. doi:10.1016/j.jfo.2009.09.009 (French)
4. Wong WT, Forooghian F, Majumdar Z, et al. Fundus autofluorescence in type 2 idiopathic macular telangiectasia: correlation with optical coherence tomography and microperimetry. Am J Ophthalmol. 2009;148(4):573-583.e2. doi:10.1016/j.ajo.2009.05.039