

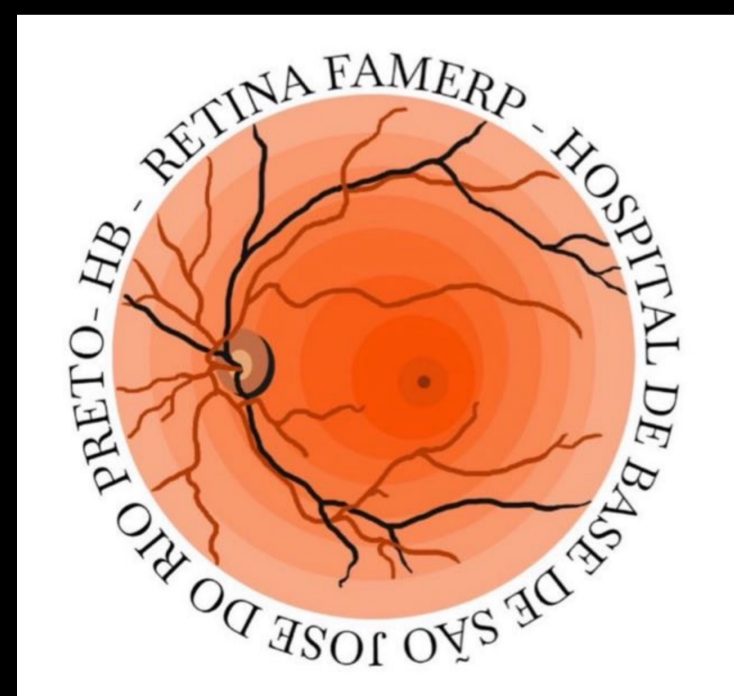


Diffuse unilateral subacute neuroretinitis with massive choroid involvement: “PACHYDUSN”

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PURPOSE: To report a uncommon case of presumptive DUSN involving the choroid and mimicking other serious diseases like lymphoproliferative pathologies, infections (e.g. tuberculosis and sarcoidosis), metastasis and histiocytosis (e.g. Rosai-Dorfman-Destombes and Ederhein-Chester diseases).

METHODS: Case presentation of 13-year-old boy complaining of indolent vision loss in the left eye for 7 days. Best corrected vision acuity was 20/20 (OD) and 20/50 (OS). Ocular anterior segment examination was unremarkable, including intraocular pressure. Dilated fundus exam revealed yellow-whitish choroidal lesions nasally to the fovea in the OS (fig. 1B). Ocular multimodal imaging was performed including color fundus retinography (fig. 1AB), near-infrared reflectance (fig. 1CD), fluorescein angiography (fig. 1I’”), autofluorescence (fig. 1DG), visual field (fig. 1EH), SD-OCT and ultrasound scan. A multidisciplinary evaluation was request with an extensive systemic work-out including blood tests and whole-body imaging with PET-scan and MRI to rule out other differential etiologic diagnoses.

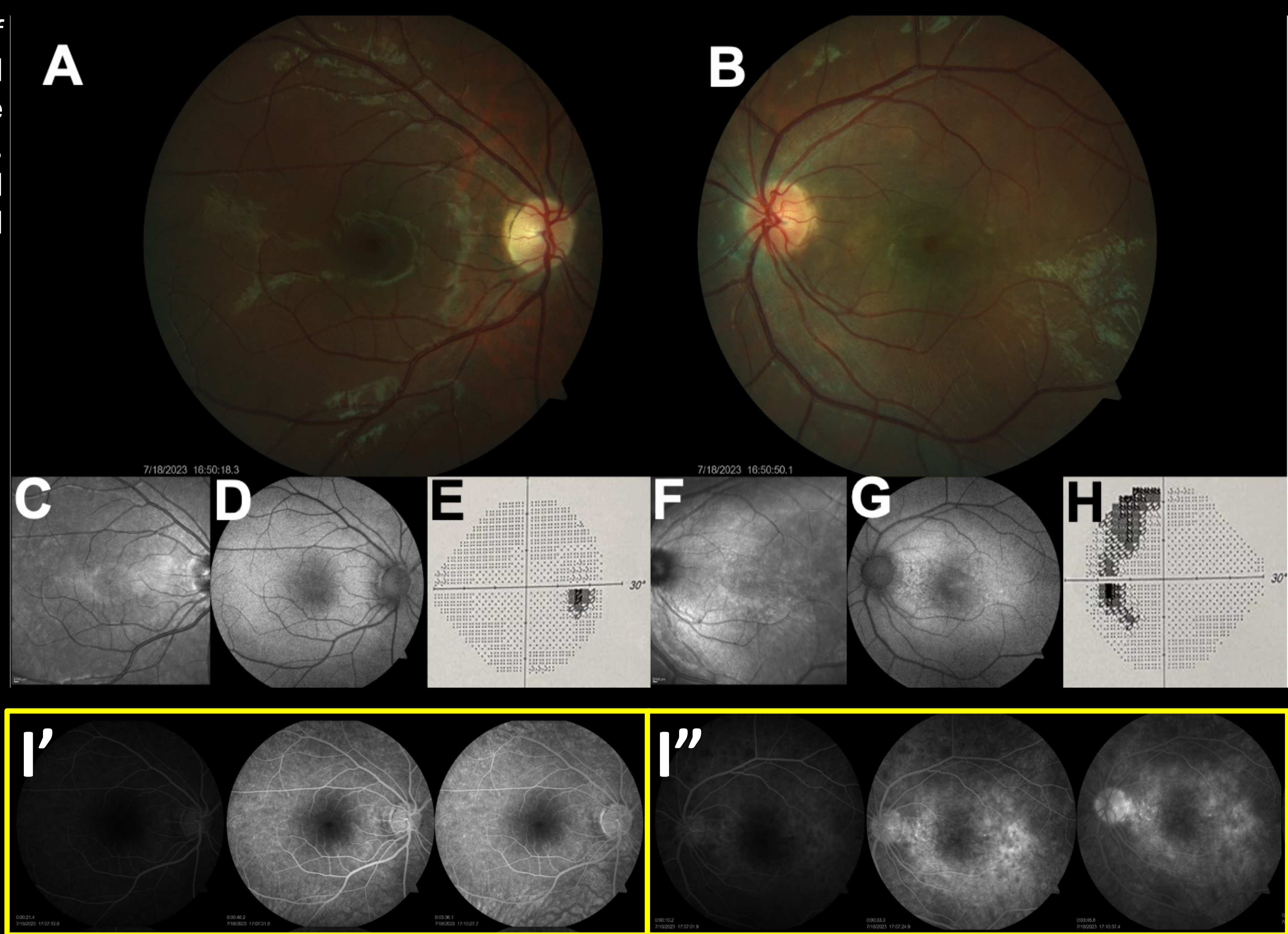
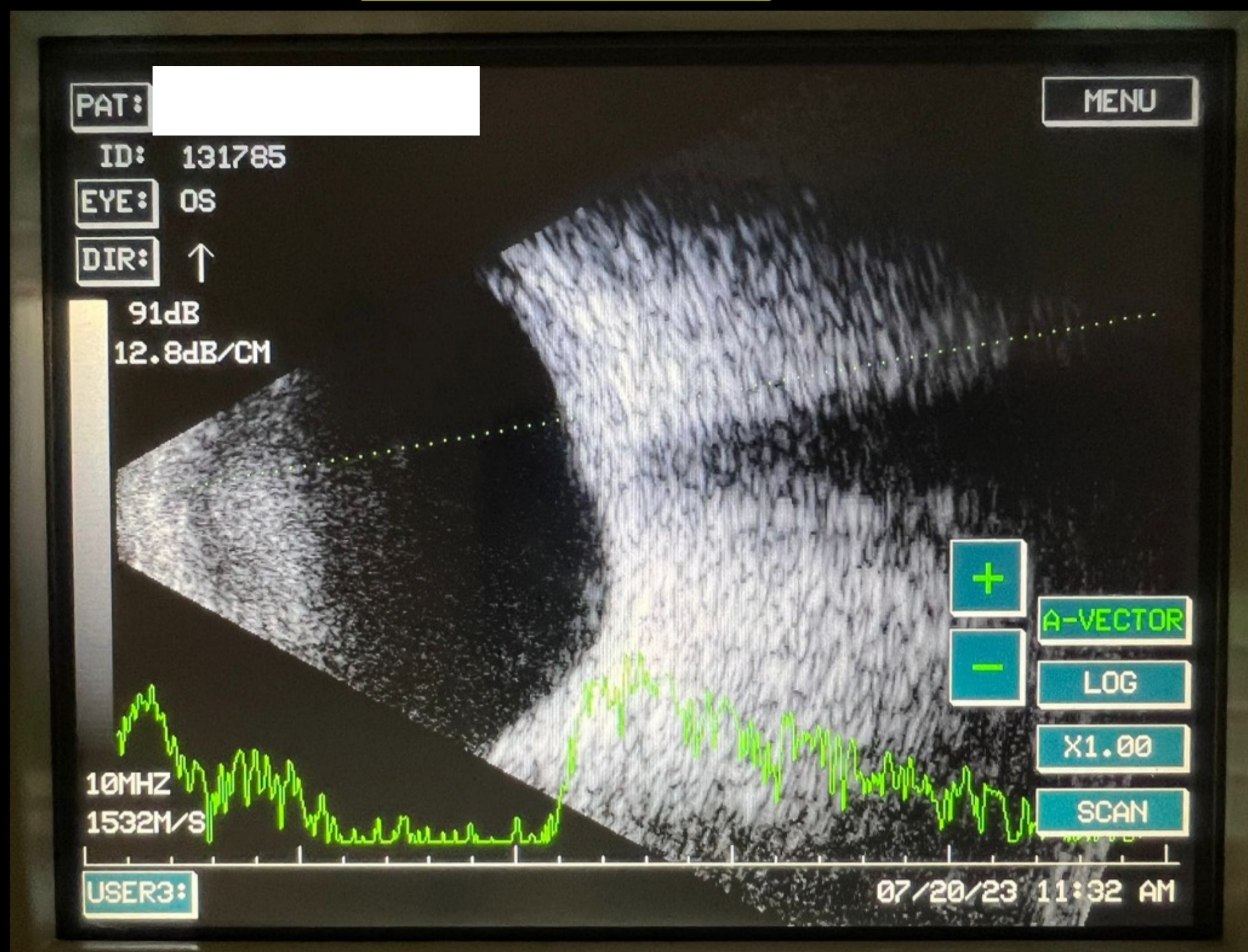


FIGURE 1

ABBREVIATIONS: DUSN, diffuse unilateral subacute neuroretinitis; OD, oculus dextrus; OS, oculus sinister; SD-OCT, spectral-domain optical coherence tomography; PET, positron emission tomography; MRI, magnetic resonance imaging; NFL, nerve fiber layer.

TEMPORAL MACULA 9H

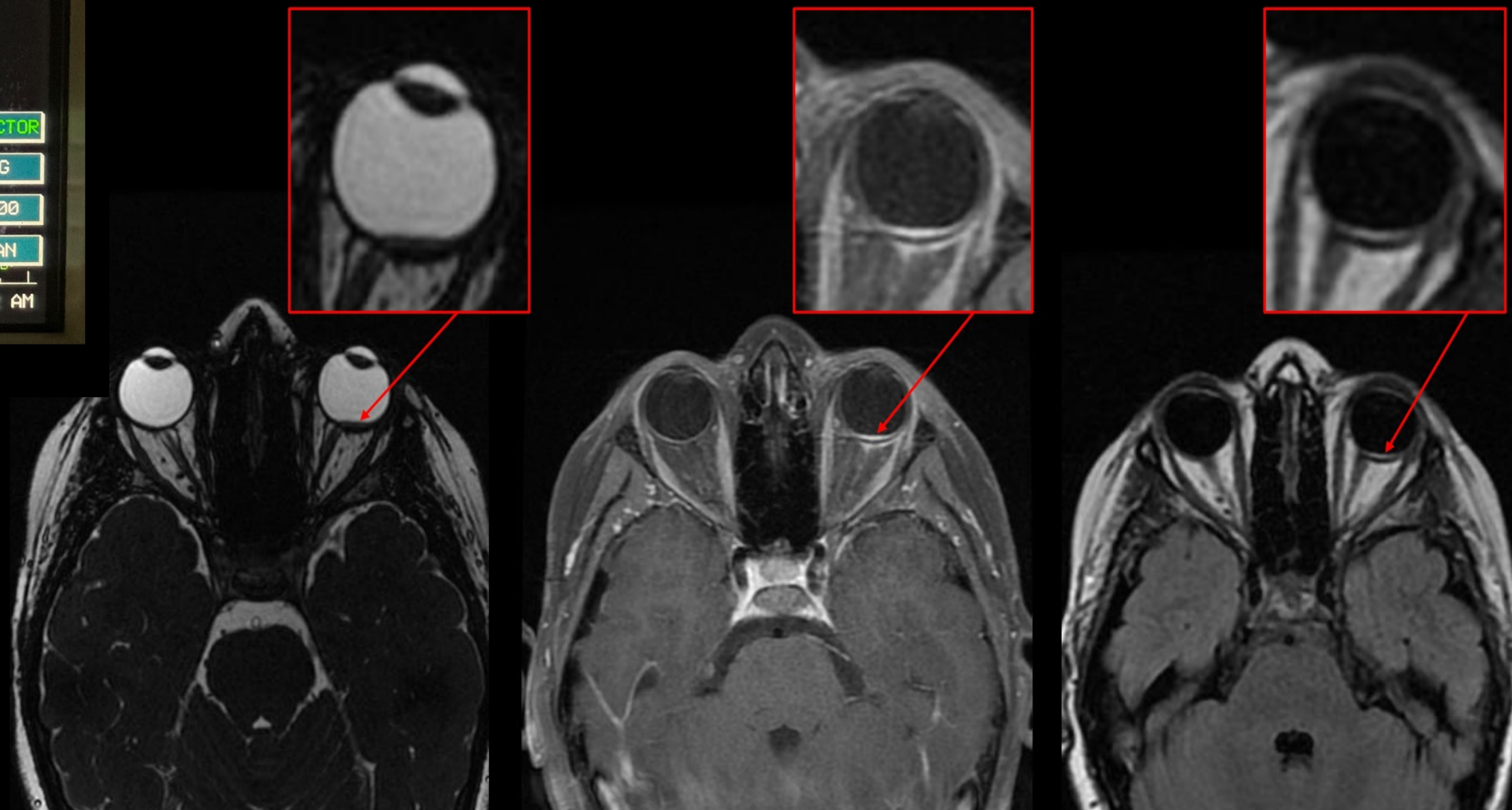


NASAL 3H

FIGURE 2. B-scan and linear A-scan revealing choroid thickening at temporally to the optic nerve. Absence of “T” sign. Retina attached.

FIGURE 3. Orbit MRI demonstrating choroid thickening at posterior pole. No evidence of encephalic expansive lesions or inflammatory process. Absence of intracranial hypertension.

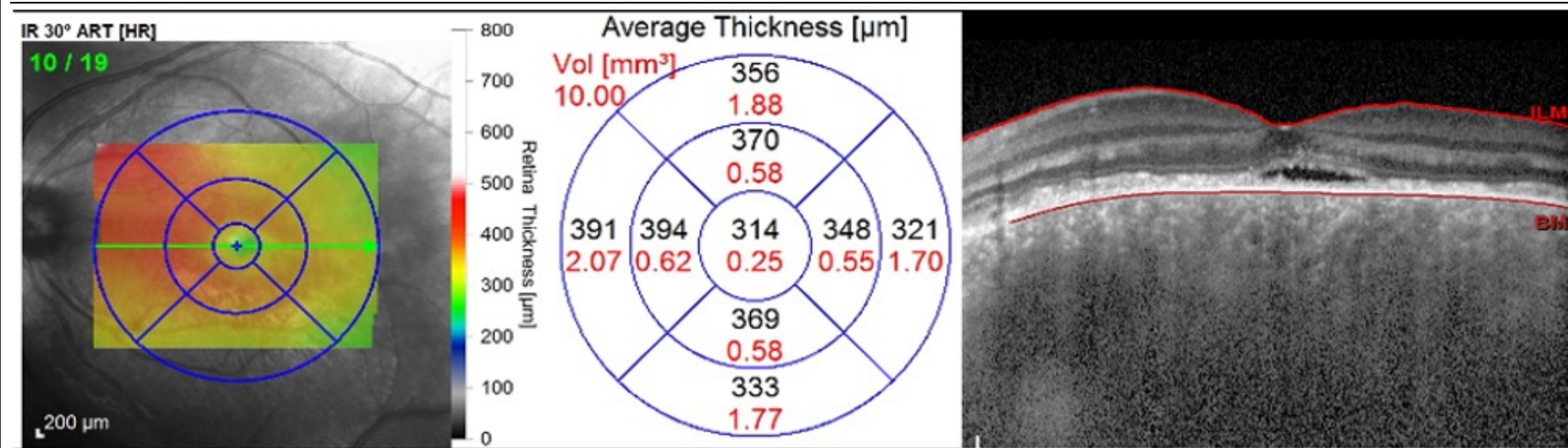
AXIAL



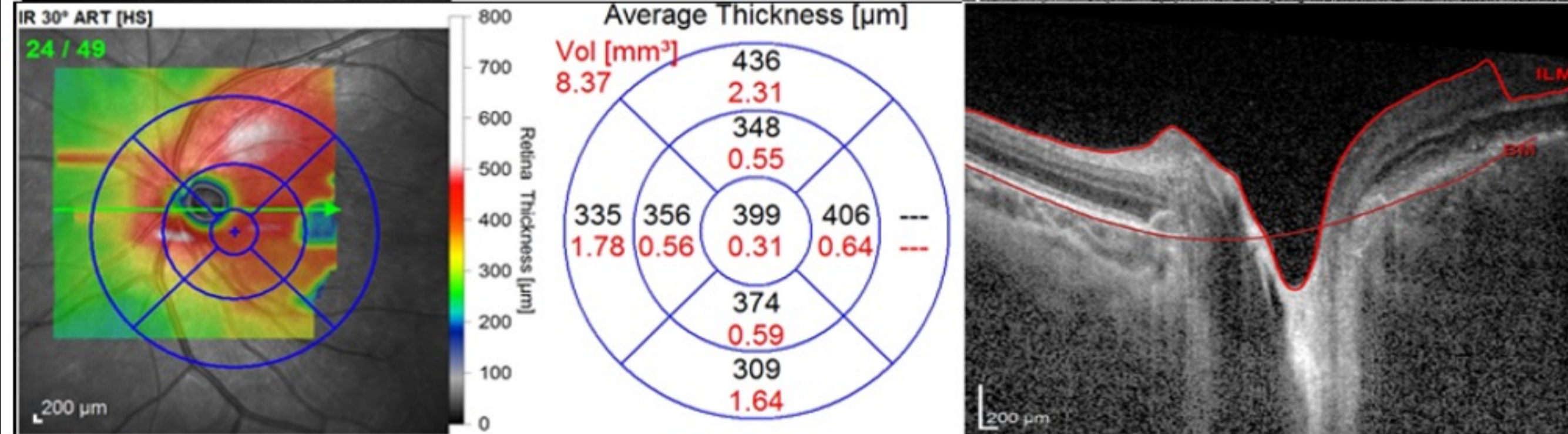
BEFORE TREATMENT

AFTER TREATMENT

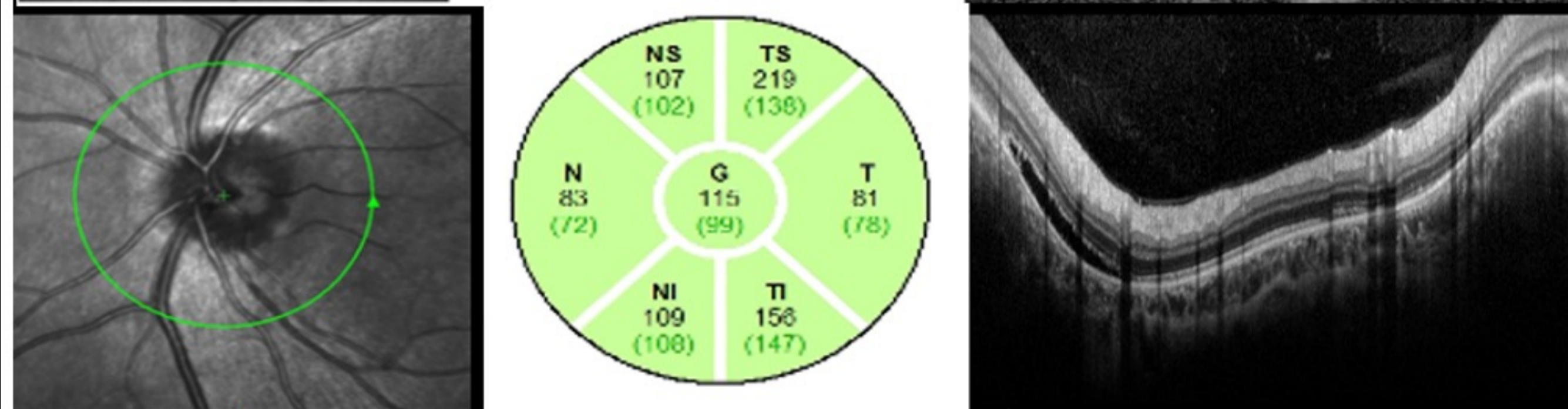
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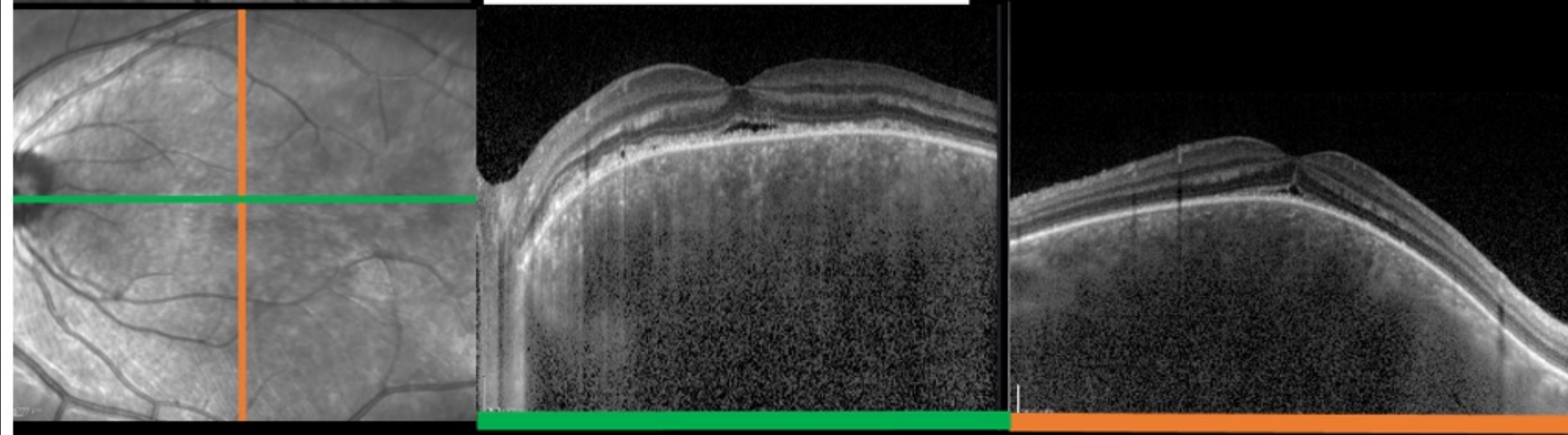
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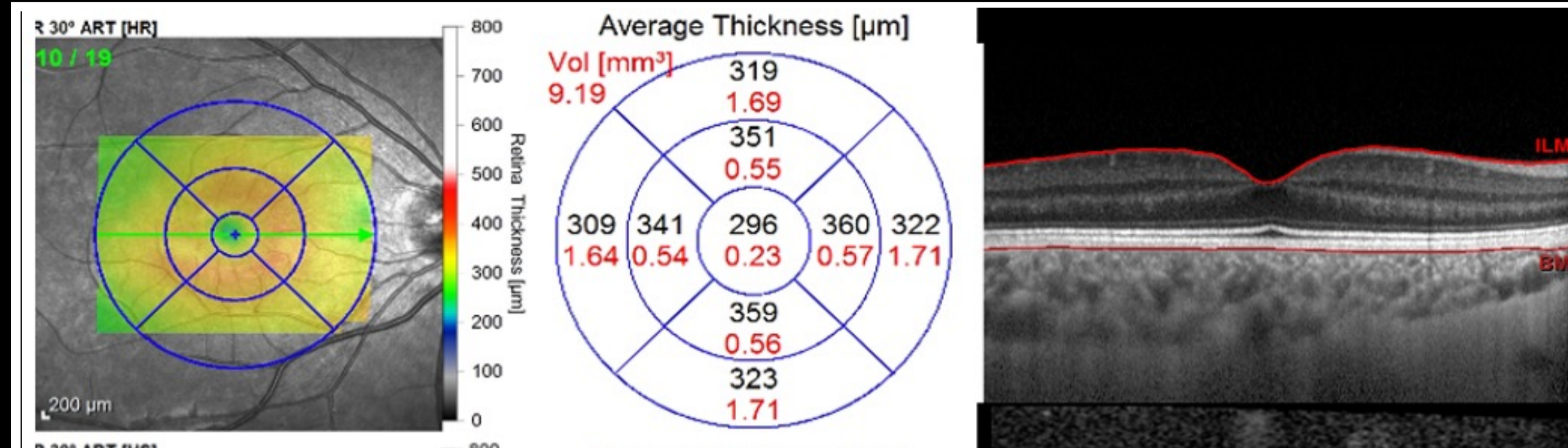
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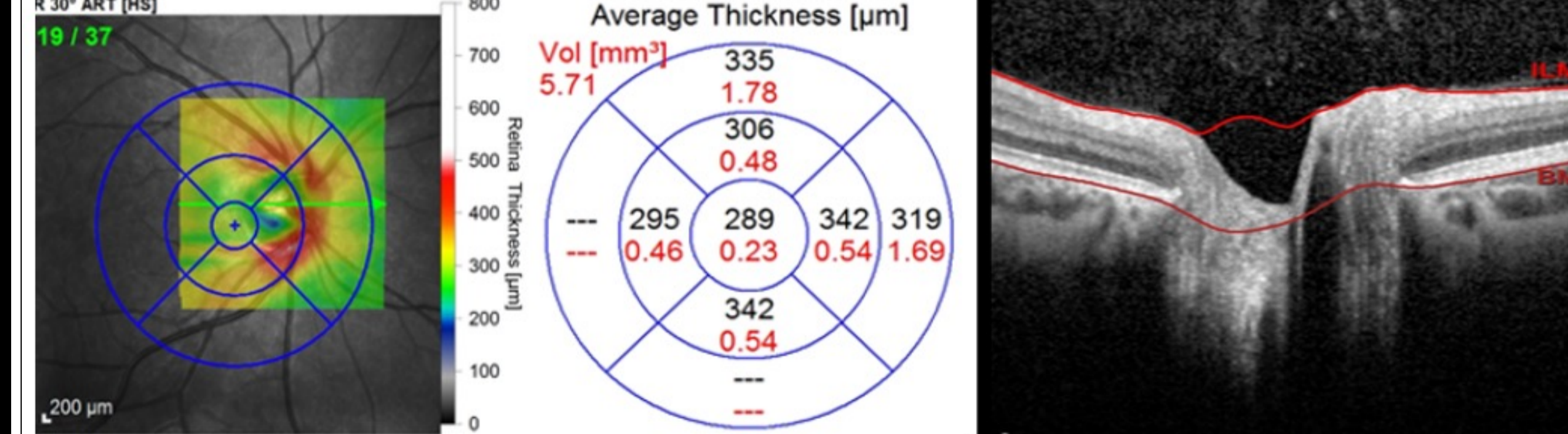
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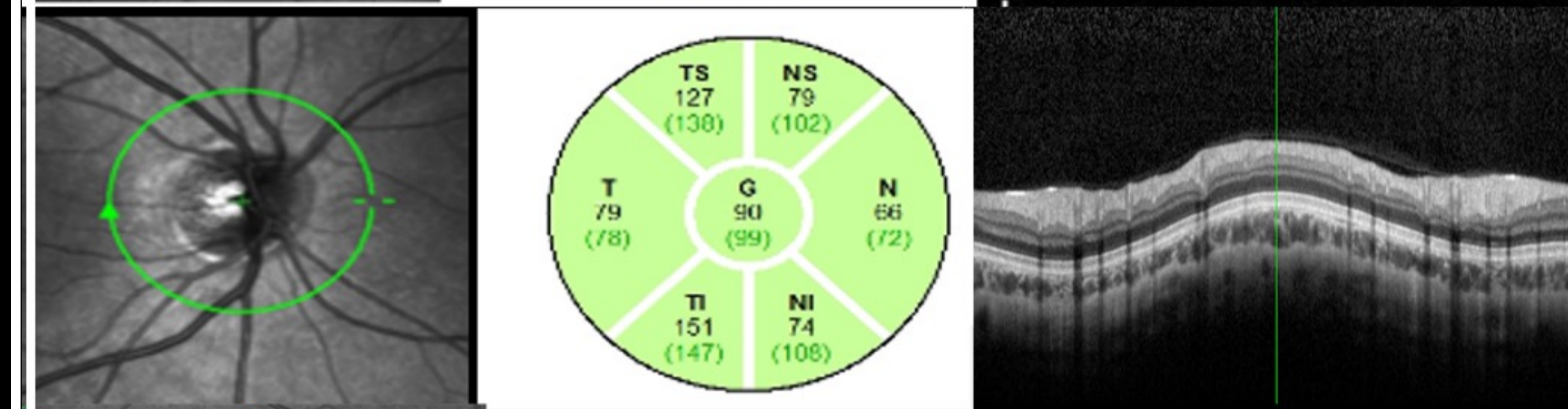
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F



G



H

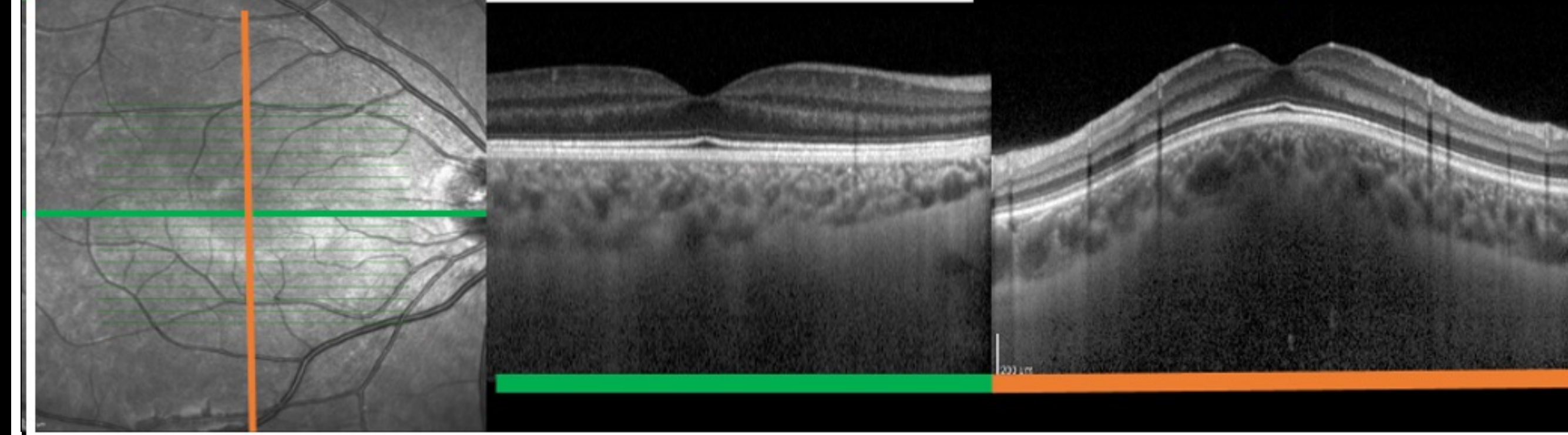


FIGURE 4: baseline SD-OCT showing thickness map and B-scan sectioning of macular (A) and optic nerve (B), respectively. NFL map and B-scan section (C). Horizontal (green) and vertical (orange) b-scan sectioning (D). Follow-up 1 month therapy showing thickness map and B-scan sectioning of macular (E) and optic nerve (F), respectively. NFL map and B-scan section (G). Horizontal (green) and vertical (orange) b-scan sectioning (H).

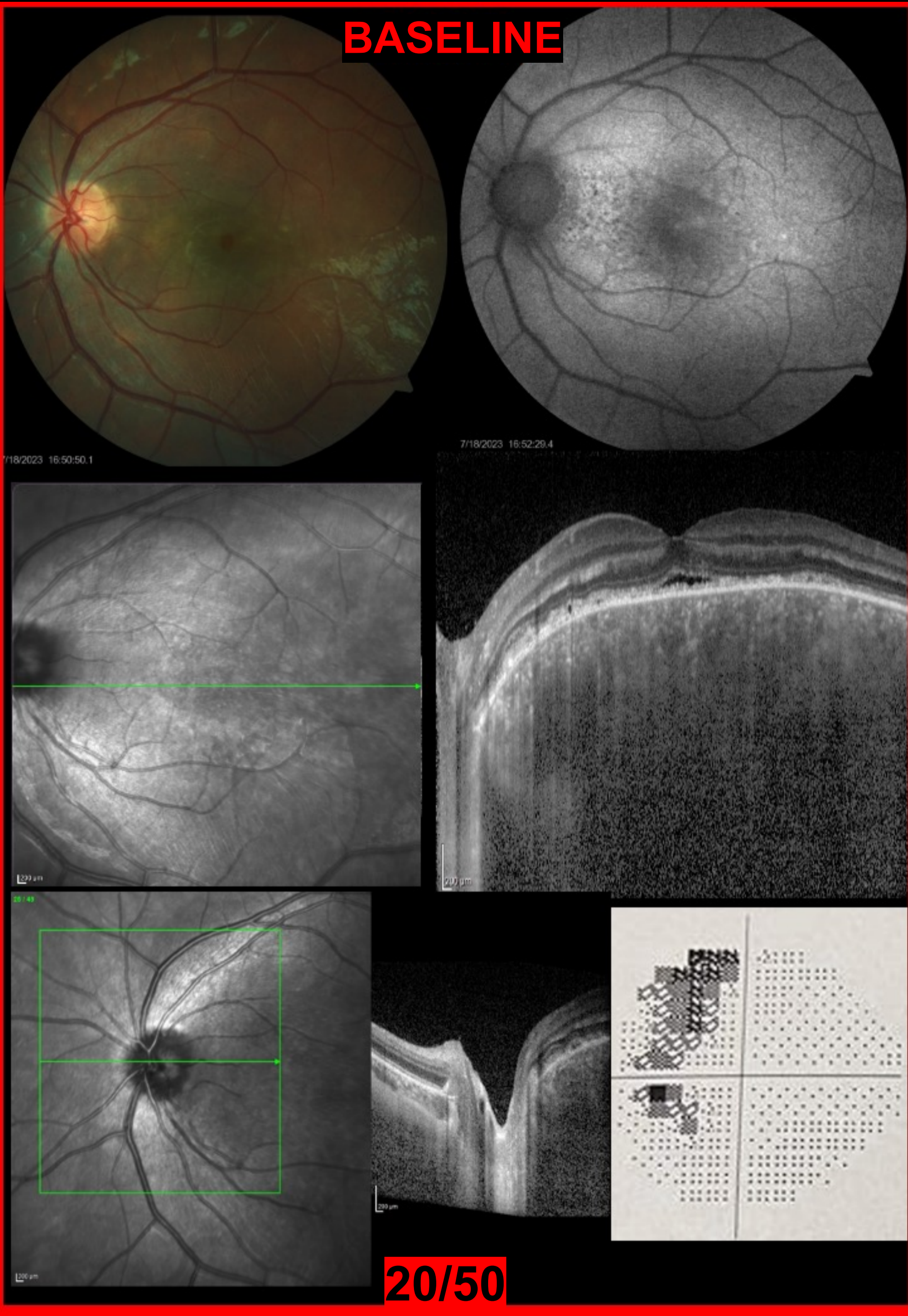


FIGURE 5. Multimodal imaging at baseline

RESULTS

Based on ophthalmologic evaluation and ocular multimodal imaging besides extensively work-out, it was suppose the presumptive DUSN infection with atypical ocular findings. Prompt oral therapy was started took albendazole 400mg twice a day for 30 days. Fig. 5 and 6 depicts the follow-up results with visual and anatomic improvement.

DISCUSSION

DUSN, is a infectious disease by nematode able to reach the choroid and subretinal space causing inflammatory retinal track with subtle vitreitis in the acute phase. At late phase, the vessels narrowing and optic disc atrophy is evident in untreated cases. Gass JD and colleagues were the first authors to call DUSN for a case series in 1978. Several types and vary sizes of nematode have been published². Smaller ones are considered possibly: *Ancylostoma caninum*, whereas bigger ones suggests be *Baylisascaris procyonis*. Therefore, when the nematoid are visualized the laser therapy shot is required to aim the nematoid death, otherwise the oral treatment is mandatory³.

REFERENCES

- 1.Gass JD, Gilbert WR Jr, Guerry RK, Scelfo R. Diffuse unilateral subacute neuroretinitis. Ophthalmology 1978;85(5):521–545.
- 2.Gass JD, Braunstein RA. Further observations concerning the diffuse unilateral subacute neuroretinitis syndrome. Arch Ophthalmol 1983;101(11):1689–1697.
- 3.Souza EC, Casella AMB, Nakashima Y, Monteiro ML. Clinical features and outcomes of patients with diffuse unilateral subacute neuroretinitis treated with oral albendazole. Am J Ophthalmol 2005;140(3):437–445



FIGURE 6. Multimodal imaging forward therapy