

Hypotony maculopathy captured with vertical rasters on optical coherence tomography (OCT) imaging

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ABSTRACT

Purpose: To remind eye care providers of the importance of obtaining vertical rasters in OCT evaluation of patients with suspected hypotony maculopathy.

Observations: OCT with vertical rasters may identify chorioretinal folds that are missed by ophthalmoscopic examination, fundus photography, and traditional OCT with horizontal rasters alone.

Conclusions and importance: In patients with low IOP and decreased vision, OCT imaging with horizontal and vertical rasters should be obtained to diagnose hypotony maculopathy and monitor response to treatment.

A 59-year-old male with severe pigmentary glaucoma in the left eye was noted to have decreased visual acuity, intraocular pressure (IOP) of 5 mmHg and new horizontal chorioretinal folds on dilated fundus exam. At the time, he was off all IOP-lowering drops, having previously undergone goniotomy, EX-PRESS shunt implantation with mitomycin C, and two bleb revisions to maintain filtration. Optical coherence tomography (OCT) imaging with horizontal raster scans (Fig. 1A) were not significant for pathology despite scanning in the area of chorioretinal folds. Vertical OCT raster scans (Fig. 1B) in the same area appropriately captured the chorioretinal folds and established baseline anatomical findings that can be used for follow-up assessments. Difluprednate eye drops were initiated, and over the next month the patient's best corrected visual acuity returned to 20/20. The patient was continued on difluprednate for another 10 months due to persistent chorioretinal folds, which eventually improved, but did not fully resolve (Fig. 1C). Both vertical and horizontal rasters should be obtained on OCT imaging in any patient suspected of having hypotony maculopathy to avoid missing the targeted anatomical findings.¹⁻³

Patient consent

Written consent to publish this case has not been obtained. This report does not contain any personal identifying information.

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Authorship statement

All authors attest they meet the current ICMJE criteria for Authorship.

Declaration of competing interest

The authors have no relevant conflicts of interest to disclose with this short manuscript.

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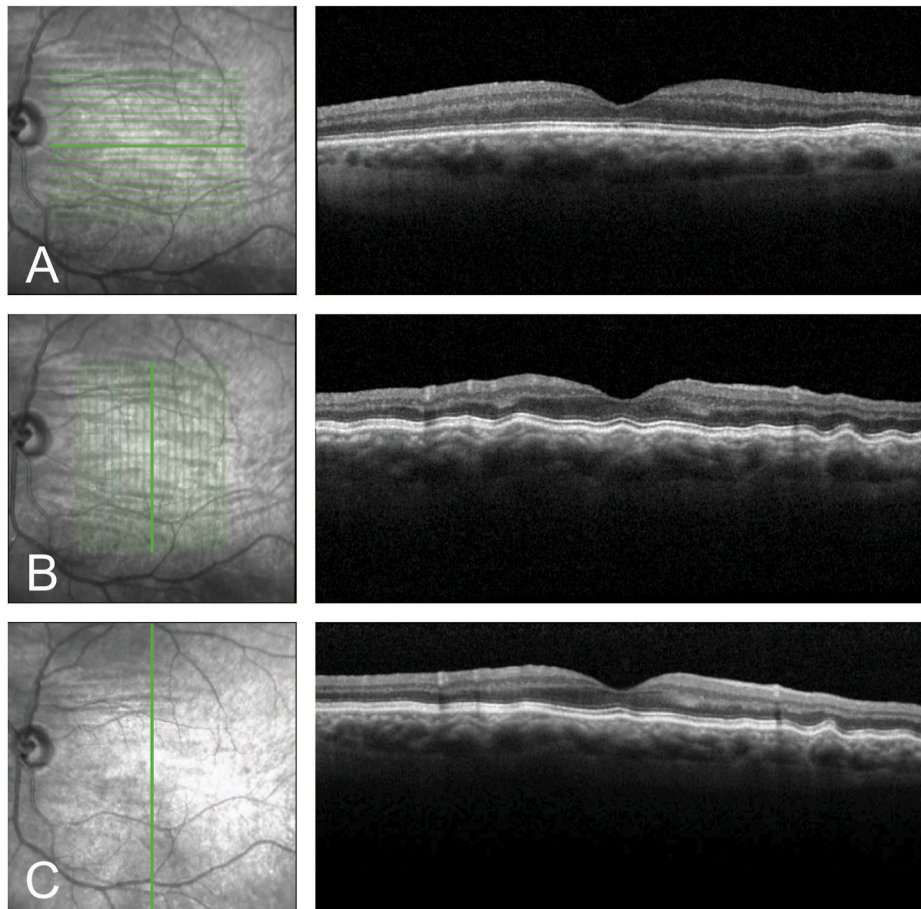


Fig. 1. A) Horizontal and B) vertical OCT rasters reveal macular chorioretinal folds due to hypotony maculopathy. These folds typically radiate temporally from the optic nerve and may be missed on traditional macular OCT imaging of horizontal rasters alone.¹⁻³ C) Vertical OCT raster 10 months later demonstrating improved chorioretinal folds.