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Background

Amyloidosis is a rare systemic disorder due to the abnormal deposition of misfolded proteins in organs, leading to organ dysfunction (1). Ocular manifestations are rare but a case series of 6 patients showed mass lesions being one of the most common symptoms. We report a case of hereditary apolipoprotein A-I amyloidosis resulting in unilateral visual field defect.

Case review & Results

51-year-old male diagnosed with hereditary apolipoprotein A-L amyloidosis in February 2015. At the time of diagnosis VA was 6/4 and visual fields within normal range. In 2019 he had urgent bilateral YAG peripheral iridectomy due to narrow occludable angles with unusual follicular reactions around the limbus and conjunctiva in both eyes. He had paint thinner exposure to the left eye in November 2022 and a follow-up appointment in one month revealed an inferior visual field defect in the left eye (*figure 1*). OCT revealed increased thickness in optic nerve and patient was subsequently diagnosed with nonarthritic anterior ischaemic optic neuropathy (*figure 2*).

References

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Discussion

This is an unusual case of visual field defect due to NA-AION. There have been two case reports with patients present with bilateral optic nerve thickening (2, 3). In contrast, our case is unilateral. Based on our findings following up the patient with the measurement of RNFL thickness is suggestive of developing visual field defects (*figure 3*).

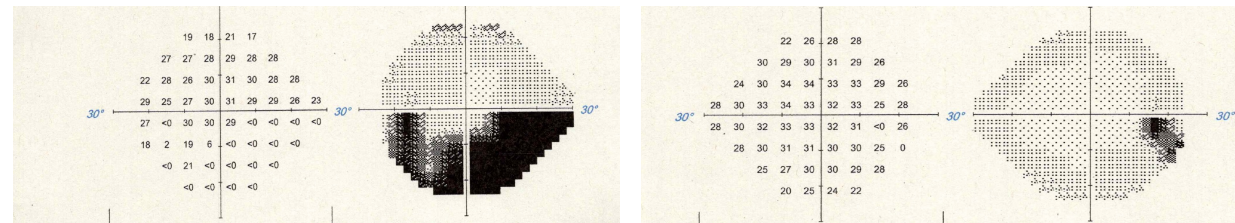


Figure 1: Visual Fields (OS Top OD Bottom) Taken in Nov 2022

Conclusion

This is a rare case of ocular manifestation of amyloidosis. Bilateral manifestations have been reported. To our knowledge, this is the first case of unilateral ocular amyloidosis resulting in visual field defects. Measurement of RNFL thickness is suggestive of developing visual field defects.

Optic Nerve Total Thickness (μm)		
Year	Right Eye	Left Eye
2015	119μm	124μm
2018	110μm	117μm
2020	88μm	309μm
2021	81μm	96μm
2022	86μm	164μm

Figure 3: Optic Nerve Total Thickness measured between 2015 – 2022.

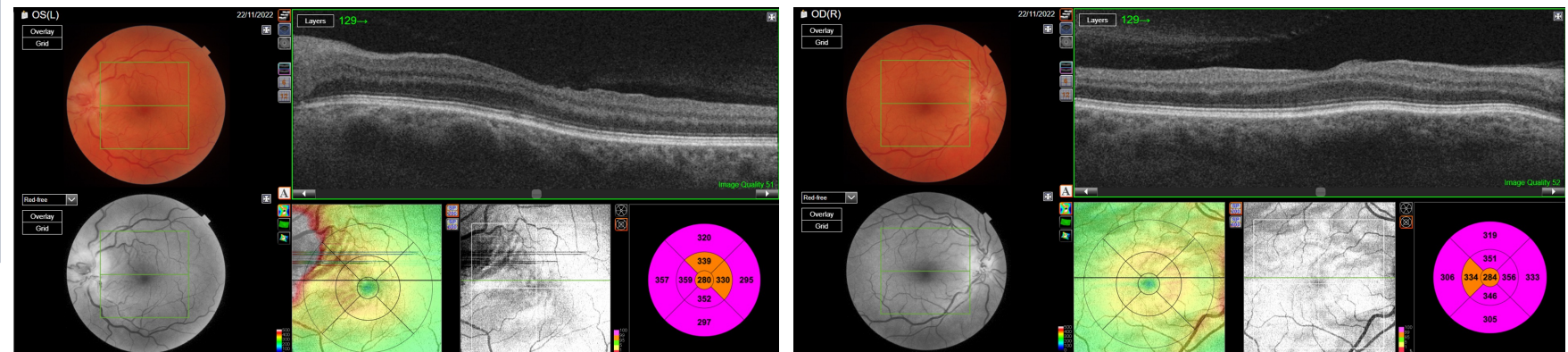


Figure 2: OCT Scan (OS and OD) Taken in Nov 2022