Photo Essay

Choroidal neovascularization in a case of angioid streaks

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Presentation

A 21 year old male patient reported in 2003 with complaint of diminution of vision in left eye since 1 month. Best corrected visual acuity OD was 20/20 and 20/120 OS. Fundus evaluation revealed angioid streaks in both eyes with scarred Choroidal neovascularization (CNV) in left eye [Fig. 1]. He was followed up regularly at intervals of 3 months. In 2010, he noticed blurring of vision in the right eye. BCVA was 20/30 OD. Fundus examination revealed presence of CNV which was confirmed on OCT [Fig. 2]. He was administered 3 intravitreal injections (IVT) of ranibizumab at intervals of 1 month each following which the lesion resolved and the visual acuity in right eye improved to 20/20 [Fig. 3]. One year later, the patient again experienced metamorphopsia with drop of BCVA to 20/30 OD. On examination the lesion appeared same as the previous follow-up and the OCT also did not suggest any fresh activity. However the fluorescein angiography revealed leakage nasal to the fovea suggestive of a recurrence from the CNV [Fig. 4]. This was treated successfully with 2 injections of ranibizumab, with the patient maintaining 20/20 OD for a period of 1 year on the last follow-up [Fig. 5].

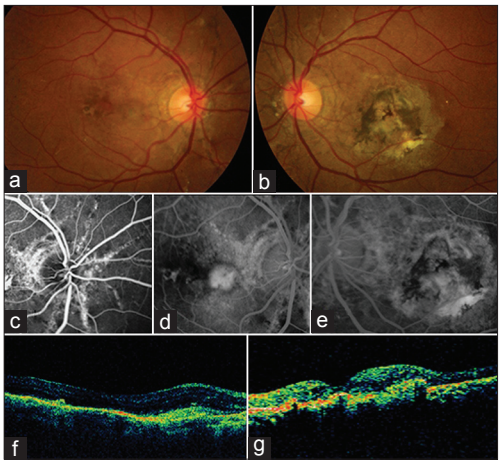

Figure 1: Fundus photograph and angiography (a, b, c) showing BE angioid streaks with a typical peripapillary ring and radiating pattern; hyperfluorescence nasal to the fovea OD (d, f) suggestive of previously regressed membrane; scarred lesion OS (b, e, g)

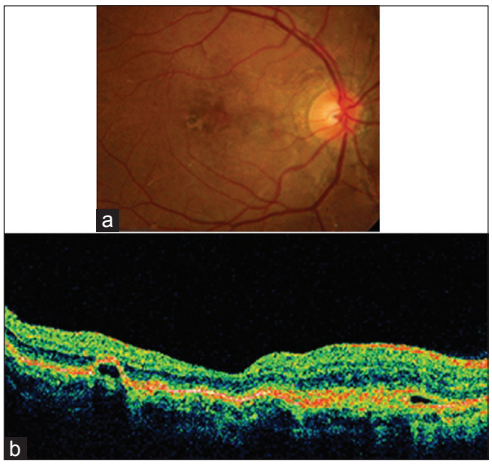

Figure 2: Photographs (a, b) showing mild increase in retinal thickness nasal to the fovea with subsensory fluid

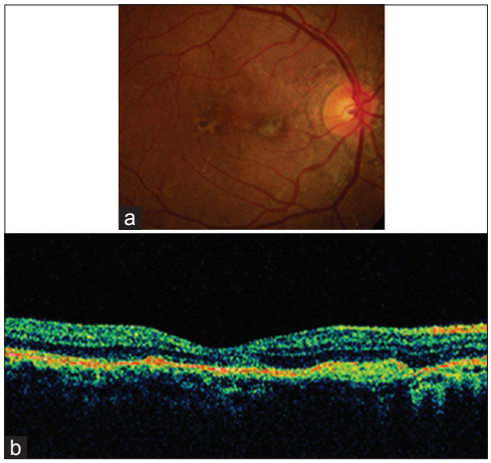

Figure 3: Resolution of subsensory fluid and scarring (a, b) following 3 intravitreal injections of Ranibizumab

Discussion

Angioid streaks are the result of crack like dehiscences in thickened, calcified and abnormally brittle collagenous and elastic portions of Bruchs membrane.[1] CNV is by far the most common cause of visual loss which can be

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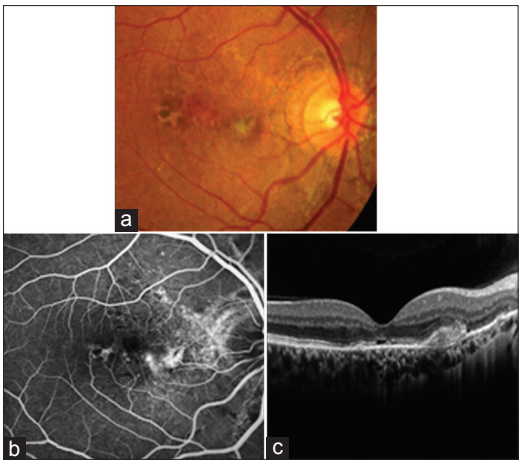

Figure 4: Fundus photograph OD (a), fluorescein angiography showing leakage nasal to the fovea (b) with OCT showing presence of a previously treated membrane without any surrounding fluid (c)

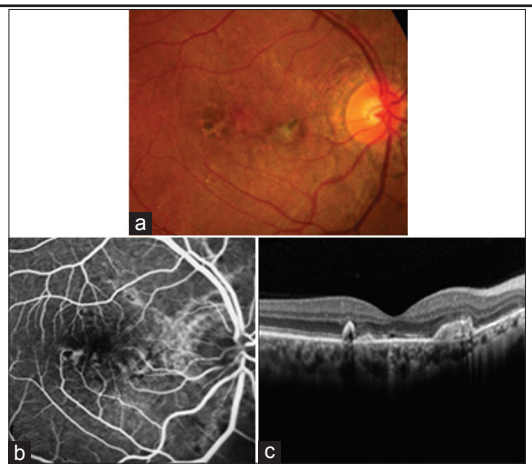

Figure 5: Resolution of leak on the fluorescein angiography following 2 injections of anti-VEGF therapy (b, c)

monitored by fluorescein angiography and OCT. Laser photocoagulation has been shown to halt the progression of extrafoveal CNVs,[2] but for subfoveal and juxtafoveal lesions multiple IVT injections of anti-VEGF drugs are the mainstay of treatment.[3] However, a subset of these patients are known to have recurrences, hence they should be advised to undergo self-assessment using an Amsler grid to detect recurrences.

References

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