


Prepapillary vascular loop – A rare cause of vitreous hemorrhage

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A 55-year-old male presented with sudden, painless diminution of vision in his left eye since 15 days. The best-corrected visual acuity was finger counting close to face with brown nuclear cataract. The Ultrasound B scan was suggestive of vitreous hemorrhage (VH) with posterior vitreous detachment. While performing combined phacoemulsification with 25-gauge pars-plana vitrectomy, inadvertently, there was a massive bleed from the stump at disc which could not be controlled with cautery or fluid/air exchange. After 1 week, a vitreous lavage was done. Fundus showed a double-helical vascular

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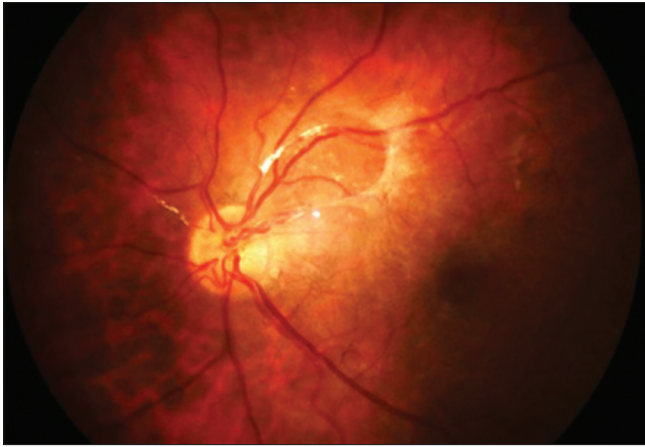


Figure 1: Double-helical vascular loop with arterial configuration arising from the optic nerve head

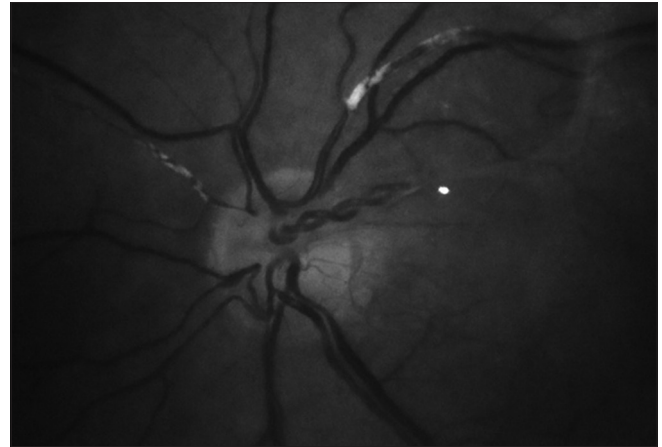


Figure 2: Magnified red-free fundus photo showing prepapillary loop



Figure 3: FFA of left eye showing delayed filling of inferior hemiretinal vessels

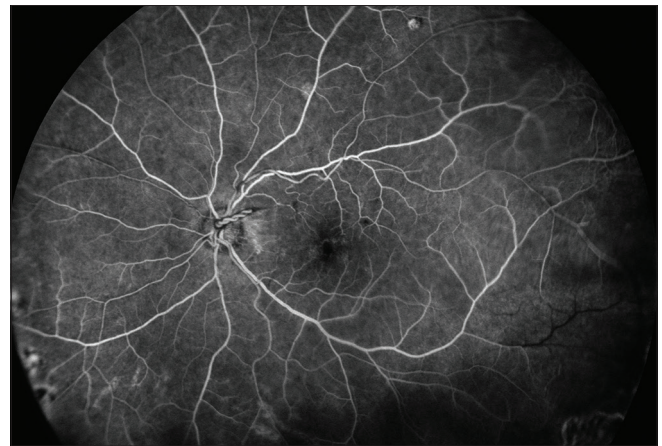


Figure 4: FFA of left eye showing filling of vascular loop and inferior hemiretinal vessels in the late phase with no ischemic area

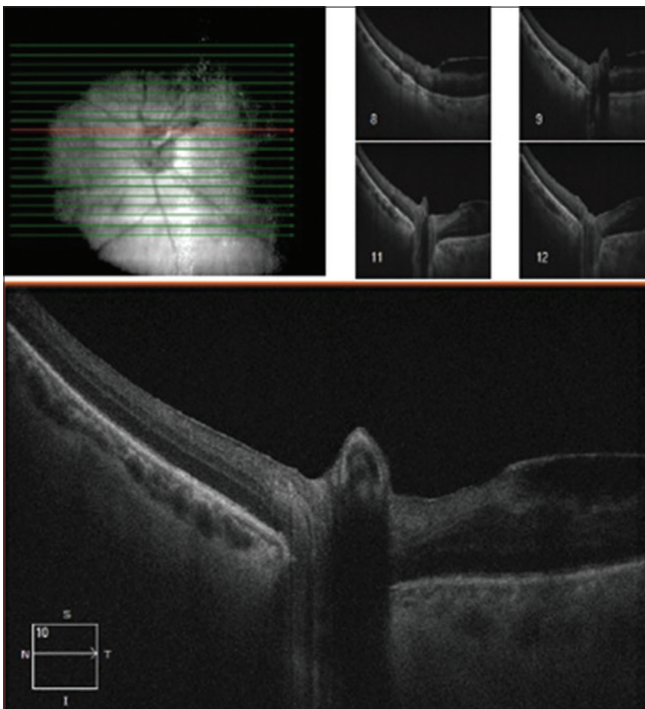


Figure 5: OCT from the prepapillary area showing elevated lesion with a central lumen and ERM in the temporal area

loop projecting into the vitreous cavity at the center of the optic disc suggestive of a prepapillary vascular loop [Figs. 1 and 2]. Upon Fundus fluorescein angiography (FFA), there was filling of the vascular loop in the late phase with delayed filling of the inferior hemiretinal vessels [Figs. 3 and 4], suggestive of the arterial origin of the loop with no ischemic insult. Optical coherence tomography showed an elevated lesion over the disc with a central lumen suggesting an arterial connection [Fig. 5].

Discussion

The incidence of prepapillary loop is approximately 0.01%.^[1] They occur when evolving retinal vessels grow into a vitreous cavity within the Cloquet's canal instead of coursing into the retina. The vessel twists and turns and may acquire a loop-like structure with a glial veil.^[2] They are usually unilateral, congenital, and benign in nature.^[3] The visual complaints are branch retinal artery occlusion, hyphema, vitreous hemorrhage, and amaurosis fugax.^[4] FFA studies have demonstrated that arterial prepapillary loops are more common than venous.^[5]

Prepapillary loops must be kept in mind while dealing with massive and uncontrolled vitreous hemorrhage, like our case, which required a two-time surgical intervention.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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