# Thin posterior capsule in persistent fetal vasculature causing an appearance of spontaneous posterior capsular rupture

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**Key words:** High myopia, laser photocoagulation, persistent hyperplastic primary vitreous, posterior capsular dehiscence, whiplash-like appearance

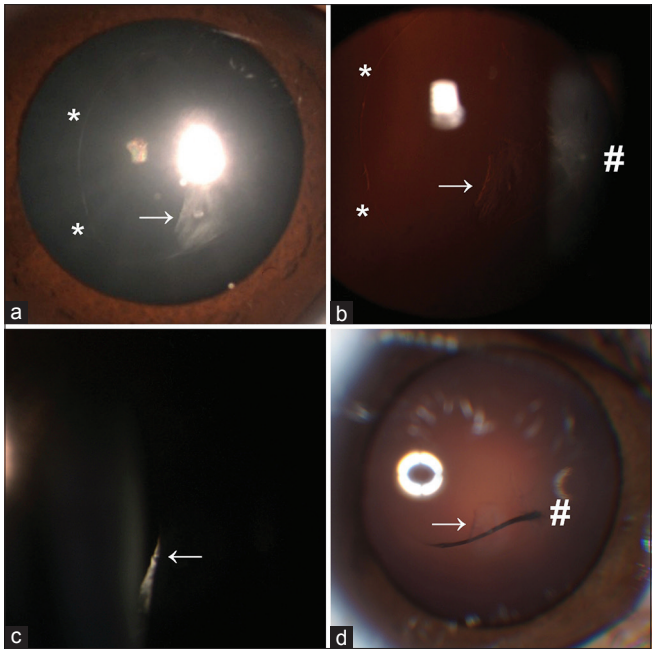


**Figure 1:** The slit lamp photograph (a), retroillumination image (b), focal illumination image (c), and an image from the fundus camera (d) show a vertically oval area of apparent posterior capsular defect (*), a white flap-like membrane (*arrow*) and anterior PFV stalk (#)

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A 23-year-old male presented for a second opinion about an area of suspected spontaneous posterior capsular rupture (PCR) [* in Fig. 1a and b] in the right eye (RE). Inferonasal to the center of the lens, there was an opaque white membrane attached to the posterior lens surface (*arrow*) accentuating the appearance of PCR [Fig. 1c]. There was a stalk [#, persistent fetal vasculature (PFV)] superonasal to this membrane going from the posterior capsule (PC) to the mid-vitreous, which moved like a "whiplash" during ocular movements [Fig. 1d and Video 1].[1] The best-corrected visual acuity was 6/12 in the RE (−6.25/−1.50 @10), and 6/6 (−1.50/−0.75 @170) in the left eye (LE). There were laser spots around peripheral retinal holes in the RE and retinal lattice degeneration in the LE. There was a history of worse vision in the RE compared to LE since childhood. There was no history of ocular trauma or incisional ocular surgery. The anterior segment optical coherence tomography (ASOCT) showed a very thin yet intact PC with a membrane attached to it [Fig. 2a, *arrow*]. The ultrasound biomicroscopy (UBM, 35 Hz) revealed an intact PC and retrolental membrane [Fig. 2b, *arrow*] behind the central lens. Behind the peripheral lens, some of the membranes were noted to be attached to the pars

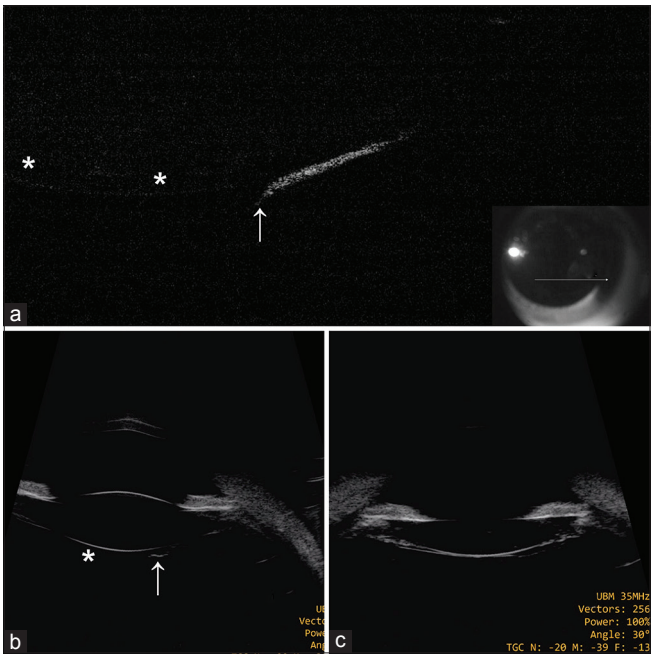


**Figure 2:** The ASOCT (a) showed an intact PC (*) and a hyperreflective membrane attached to the PC (*arrow*). The UBM image (b) (horizontal scan) reconfirmed posterior capsular integrity (*) and a membrane attached to the PC (*arrow*). The UBM scan through peripheral lens (c) showed some retrolental membrane, some of which were connected to the pars plana



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plana [Fig. 2c]. On review of the old records, the best corrected visual acuity and ocular condition seemed stable. The patient was advised regular follow-up.

Our patient had unilateral high myopia (probably with lenticular[2] component), anisometropic amblyopia, with PFV, and an apparent appearance of PCR in the RE. A PCR was ruled out using ASOCT and UBM. Our case may represent the unilateral myopic variant of PFV, which is associated with good visual prognosis, normal anterior segment dimensions (rather than usual microphthalmia), and is usually detected late.[3] The retrolental membranes are a well-known feature of PFV.[4]

### 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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### Conflicts of interest

None of the authors has a conflict of interest.

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