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Case Report

Out of the Blue Cataract - Sudden Loss of Vision Due to Cortical Liquefaction

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Abstract

Sudden loss of vision usually is due to retina ,glaucoma, optic nerve pathology or trauma. Cataract causes gradual loss of vision usually. Here we report a rare case of sudden loss of vision due to cataract where posterior cortex liquefaction occurred and sequestered within layers of cortex, mimicking liquefaction sequestration in anterior vitreous face which was confirmed with imaging modalities like B scan and AS OCT, and patient was advised premium IOL surgery without any fear and vision regained postoperatively 6/66. Thus imaging modalities are necessary for diagnosing rarer conditions and explaining prognosis to patient before proceeding for cataract surgery.

Keywords: Cortical Liquefaction; Cataract; AS OCT Imaging; Amourosis

Introduction

A 60-year-old female presented with sudden loss of vision in right eye within one day. Vision was hand movements in right eye (RE) and 20/20 in left eye (LE). Patient was known hypertensive on medication under control and vitals were normal and blood sugar was normal. Anterior segment examination showed yellowish-white reflex in RE in posterior aspect of lens? In anterior vitreous face (AVF) (Figure 1A), minimal cortical changes in LE (Figure 1B). Fundus was faintly seen in right eye and left eye was normal. On ultrasound B scan stand-off image, RE showed posterior capsular limit with few cortical calcification (Figure 1C), LE no posterior capsule was not clearly distinguished (Figure 1D) and vitreous cavity was echo free in both eyes. Fundus was faintly seen in right eye ruling out posterior segment pathology.

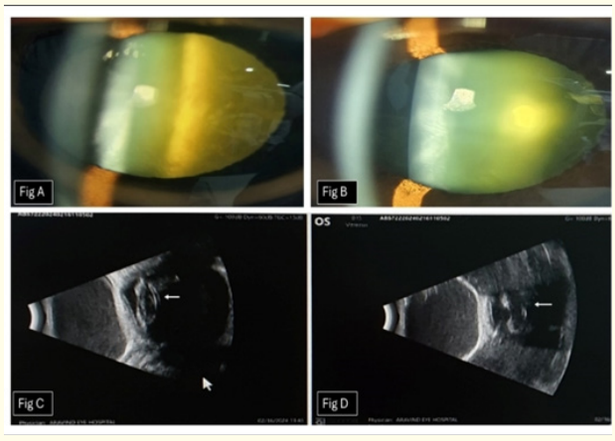

Figure 1: Anterior segment examination showed yellowish-white reflex in RE in posterior aspect of lens (?doubtful) in anterior vitreous face (AVF) (Figure 1A), minimal cortical changes in LE (Figure 1B). Fundus was faintly seen in right eye and left eye was normal. On ultrasound B scan stand-off image, RE showed posterior capsular limit with few cortical calcification [white arrow] (Figure 1C), LE posterior capsule was not clearly distinguished [white arrow] (Figure 1D).

In IOL master 700 AS OCT image RE showed hyper dense echogenic region in posterior sub capsular area (Figure 2E), while in LE it was relatively echo free (Figure 2F) with normal vitreous cavity in B scan. Thus, coming to a conclusion of sudden posterior cortex liquefaction sequestration within the lens layer leading to sudden loss of vision and normal posterior segment.

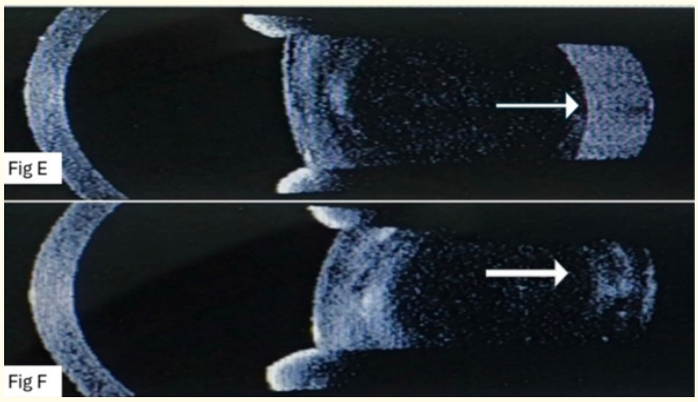

Figure 2: In IOL master 700 AS OCT image RE showed hyper dense echogenic region in posterior subscapular area [white arrow] (Figure 2E), while in LE it was relatively echo free [white arrow] (Figure 2F).

Patient was advised cataract surgery and during surgery after hydro dissection posterior liquid cortex escaped anteriorly and rest of surgery was uneventful and postoperatively patient regained vision 20/20.

Discussion and Conclusion

Senile cataract also known as an "age-related cataract" occurs in two forms, the cortical (soft cataract) and the nuclear (hard cataract) [1]. Cortical cataracts are most often found in the inferionasal part of the lens, which may reflect ultra-violet radiation involvement in their aetiology [2]. In every type of beginning senile cataract the cortex of the lens appears thinner than the normal lens cortex in the same age group. The decreased rate of fibre formation and of proteosynthesis precedes the first appearance of lens opacities [3]. The incidence of patients presenting only with hypertension ranged from 43 43.8% in cases with sub capsular cataract to 24.3% in cases with nuclear cataract. Cortical cataracts generally progress slowly; with time the spoke width expands as the opacity spreads to adjacent fibres. Fluid accumulates and membrane rupture in the equatorial area can occur [4]. Sudden liquefaction of cortical cataract limiting between the cortical layers is very rare especially in nondiabetic patients presenting with sudden loss of vision. The most frequent risk factor for all types of cataracts was hypertension. With the assistance of a standoff, the B-scan probe's range of penetration is shifted anteriorly, allowing for the visualization of the anterior and posterior segments [5]. With this technique and confirmation with AS OCT image we were able to come to the conclusion of posterior cortical cataract liquefaction sequestration, which was a unique presentation leading to sudden loss of vision due to cataract. Patient was taken up for cataract surgery and regained vision back postoperatively and premium lenses can be advocated for such patients without any fear.

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.

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Nil.

Conflicts of Interest

There are no conflicts of interest.

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