



Ectopia Lentis Piscis – A Subluxated Human Lens with Complex Cortical and Nuclear Cataract Simulating a Fish Like Configuration

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Abstract

To present a rare morphological and asymmetric pattern of cataractous subluxated lens in Marfan syndrome. A unique fish-like lens configuration is a newly reported morphological pattern. Despite the absence of a significant history of ocular trauma, the patient underwent sequential bilateral cataract surgery with scleral fixation of a multipiece intraocular lens at a 6-week interval, resulting in a best-corrected visual acuity of 6/9 in both eyes. This case highlights the occurrence of bilateral lens subluxation in a Marfan syndrome patient, leading to a distinctive fish-like configuration of cataractous changes with asymmetry. The absence of significant trauma emphasizes the multifactorial nature of ocular manifestations in Marfan syndrome. The successful management through sequential cataract surgery with scleral fixation suggests the importance of tailored surgical interventions in such cases.

Keywords: Marfan Syndrome; Ectopia Lentis Piscis; Presenile Cataract; Lens Subluxation, Genetic

Case Report

A middle-aged man in his forties presented to us with bilateral diminution of vision for past 5 years. He is a known case of Marfan syndrome with positive family history. He has been wearing thick glasses for past 20 years. On examination his best corrected visual acuity was 4/60 in right eye and 6/60 in left eye on Snellen's chart and normal intraocular pressure in both eyes on non-contact tonometry. Anterior segment evaluation revealed bilateral subluxated lens with cataractous changes. The right eye on retro illumination captured at 16x magnification shows a temporal subluxated lens with weak and intact zonules with age related complex cortical and nuclear lenticular opacity in the center simulating a fish like configuration (Figure 1). The reason for the development of this morphological configuration is unknown, but a combination of pathological process can result in variations in presentation of any medical condition [1,2]. Trauma can result in a multitude of variation in classical presentations of many conditions, but in our case, there was no significant history of trauma to eye. The patient underwent sequential bilateral cataract surgery with scleral fixation of multipiece hydrophobic acrylic IOL at 6 weeks interval with best corrected visual acuity of 6/9 in both eyes.

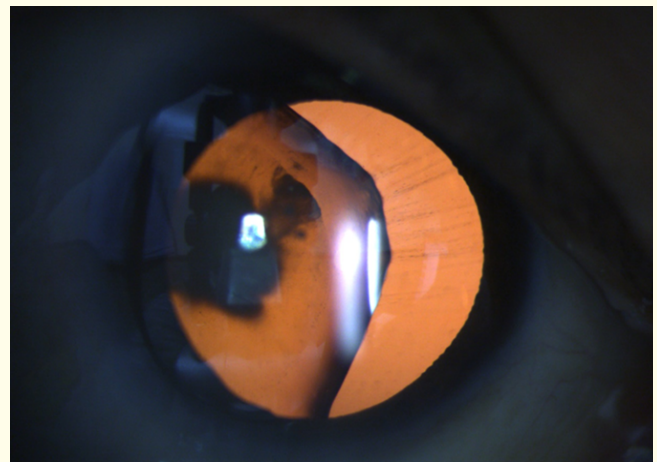


Figure 1: Shows a retro illumination image captured at 16x magnification with lens subluxation and complex cortical and nuclear cataract which simulates a fish like configuration with weak but intact zonules attached to lens equator.

Discussion

Marfan syndrome is a genetic disorder with systemic manifestations, including ocular abnormalities. We present a unique case

of a middle-aged man with Marfan syndrome who exhibited bilateral lens subluxation and presenile cataractous changes, resulting in an uncommon fish-like lens configuration in the right eye. The absence of significant trauma in our patient challenges the conventional understanding of lens subluxation aetiology, emphasizing the complex interplay of genetic factors in Marfan syndrome [3]. The fish-like lens configuration observed in the right eye, characterized by weak and intact zonules and age-related complex cortical and nuclear lenticular opacity, further adds to the diverse ocular presentations associated with Marfan syndrome. The management of this case involved sequential bilateral cataract surgery with scleral fixation of a multipiece intraocular lens. This approach aimed to address the lens subluxation and provide optimal visual rehabilitation [4]. The 6-week interval between surgeries allowed for adequate healing and stabilization, resulting in a notable improvement in best-corrected visual acuity to 6/9 in both eyes. This case presents an asymmetrical morphological presentation of subluxated lens in Marfan syndrome.

Conclusions

Morphological variations in cataract can result from multiple factors such as genetic, trauma, superadded eye conditions and systemic comorbidities. Understanding the morphological variances prior to surgery can aid in more effective planning and management.

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