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Case Report
Published: 09 Feb, 2018

Journal of Ophthalmology Forecast

Presence of a Stone Fragment on Anterior Surface of Iris for Fifty Years

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Abstract

Intraocular foreign bodies if not metallic and vegetative are well tolerated and remain quiet for years. Were port a male patient with a fragment of stone located on anterior surface of inferior iris for 50 years. He had ocular surgery because of penetrating ocular trauma 50 years ago. He was aphakic, pupil was pushed upwards, iris sphincter was a trophic superiorly and eye was quiet without any sign of inflammation.

Keywords: Intraocular foreign bodies; Ocular surgery; Anterior surface

Introduction

Intraocular foreign bodies (IOFB) are the most common cause of penetrating ocular trauma and may result in a wide range of intraocular pathology and severe visual loss depending on mechanism of injury, size andlocation of the IOFB, occurance of postoperative end ophthalmitis and proliferative vitreoretinopathy [1,2]. Early management of IOFB is important toreduce these complications. Here in we describe a case who had penetrating ocular trauma and ocular surgery 50 years ago and had a fragment of stone on anterior surface of inferior iris which was quiet without any sign of inflammation.

Case Presentation

A 70-year old male presented with decreased visualacuity in his left eye for several years. He had a history of ocular trauma 50 years ago and had low vision since then in the right eye. Best corrected visual acuity was 0.05 in the right eye and 0.5 in the left eye. And intraocular pressure was 22mmHg and 19mmHg respectively. Biomicroscopic examination revealed approximately 6mm diameter fixed stone fragment on inferior iris surface, iris and pupil were pushed upwards towards the probable entrance site of stone fragment. İris sphincter was a trophic superiorly (Figure 1) and he was aphakic in the right eye (Figure 2). There was nuclear cataract in the left eye. Retina examination was normal in both eyes.

He told that he hadn't visit an ophthalmologist after the penetrating ocular trauma of right eye. He was surprised to learn that there was a stone in the right eye. He had no complaint from his left eye for 50 years except low vision and didn't want surgical removal of the stone fragment. Cataract surgery planned to the left eye.

Discussion

Composition of IOFBs are classified as metallic, vegetative, stone, plastic and glass. It is well-known that inorganic materials (stone, plastic, glass) are better tolerated in the eye than organic material due to their inert nature. And these inorganic materials may not warrant removal unless complications arise orifanterior migration occurs [3,4]. There are several case reports in the literature that remained quiet for years with retained IOFBs. Gokmen et al. reported a missed intraocular stone foreign body that remained a symptomatic underneath their is for 60 years which is the longest period of remained IOFB in the eye in the literature [5]. In contrary to this, Schocket et al. reported a penetrating intraocular stone that caused retinal detachment which is repaired successfully, but patient returned with siderosis bulbi 18 months later [6]. In our patient there was also no inflammation or metallosis due to this stone fragment seen 50 years later after penetrating ocular trauma. He was aphakic and he didn't give enough history if aphakia occured spontanously with penetrating ocular trauma or iatrogenicly with ocular surgery that was performed 50 years ago.

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Received Date: 26 Dec 2017
Accepted Date: 02 Feb 2018
Published Date: 09 Feb 2018

Citation: Örnek N, Örnek K, Gökçınar NB, Oğurel T. Presence of a Stone Fragment on Anterior Surface of Iris for Fifty Years. J Ophthalmol Forecast. 2018; 1(1): 1001.

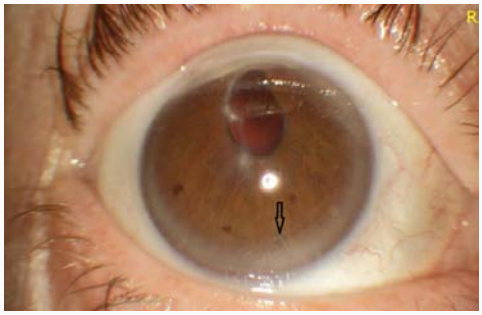

Figure 1: Fixed and approximately 6mm diameter stone fragment on anterior iris surface is seen (arrow). Pupil and iris were pushed upwards towards probable entrance side.

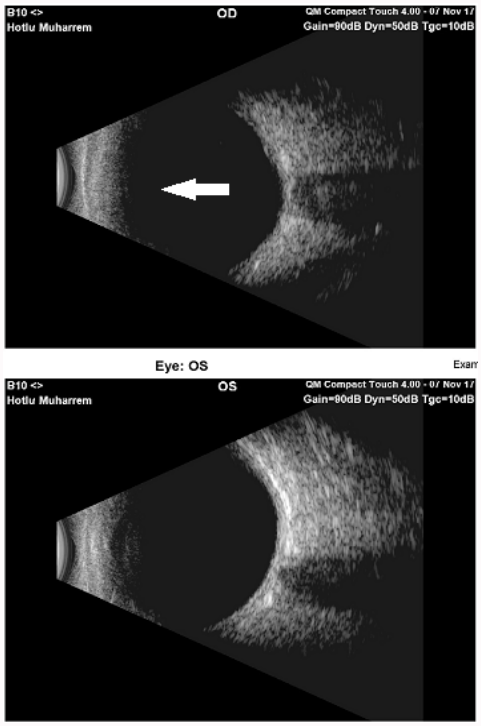

Figure 2: Aphakia of left eye as demonstrated with B-mode ultrasonography (arrow).

Only about 10-15% of all IOFBs are retained in the anterior chamber [2]. Wen et al. in their series of 165 patients with IOFBs located in anterior chamber reported that 66% (109 eyes) of these IOFBs were non metal and most of them were stone or iron. And 59% (97 eyes) of these IOFBs were located on the surface of the iris. They concluded that it is better to removeI OFBs first and then to perform other operations for complications [7]. Non metallic foreign bodies tend to have lower speed than metallic ones. They can penetrate the cornea and tend to remain in the anterior chamber. And iris surface can act as a barrier against the lower speed of IOFBs. In our case, non metal stone fragment was also located on anterior surface. And this clearly visible stone fragment stayed on iris surface for 50 years without any sign of inflammation or metallosis. In occurance of these complications ingradient of stone fragments may also be important. Although there was no complications, because of it's location in anterior chamber, we suggested surgical removal, but the patient refused ocular surgery.

Conclusion

In conclusion non metalic inert IOFBs like stone fragments can retain on anterior iris surface without any sign of inflammation and complicaion for a long time.

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