

# A presenting as Retained Iridocorneal Angle Foreign Body Resembling to Disciform Keratitis A Case Report

## Diskiform Keratit Benzeri Bulgularla Gelen İridokorneal Açıda Yabancı Cisimle Karakterize Bir Olgu Sunumu

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### ABSTRACT

Penetrating ocular trauma with intraocular foreign body is a serious injury often resulting in vision loss. Anterior chamber foreign bodies account for up to 15% of all intraocular foreign bodies. In this article we report a case of a retained intraocular foreign body at the iridocorneal angle which was misdiagnosed as disciform keratitis due to localized corneal edema. A 55-year-old male applied to our clinic with complaints of decreased vision and redness in his left eye for one month. At the initial examination, stromal edema involving the inferior half of the cornea, epithelial microcysts, and moderate anterior chamber reaction were observed. The appearance of suspicious full thickness corneal wound at high magnification led us to perform gonioscopy. A foreign body located at the inferior iridocorneal angle was observed with Goldmann 3-mirror gonio-lens. The foreign body was surgically removed and two weeks after surgery corneal edema began to resolve. This interesting case showed that retained intraocular foreign body might reveal itself as non-healing corneal edema and should be kept in mind in the differential diagnosis.

**Key Words:** Corneal edema, foreign bodies, iridocorneal angle.

### ÖZ

Göz içi yabancı cismin eşlik ettiği penetran oküler travmalar görme kaybı ile sonuçlanabilen ciddi yaralanmalardır. Göz içi yabancı cisimlerin %15 kadarı ön kamarada bulunmaktadır. Bu makalede lokalize kornea ödeminden dolayı diskiform keratit tanısı almış ve ön kamara açısında göz içi yabancı cisim tespit edilen bir olgu tanımlanmıştır. Sol gözünde görme azalması ve kızarıklık şikayeti ile başvuran 55 yaşındaki erkek olguda yapılan ilk muayenede korneanın alt yarısını etkileyen stromal ödem, epitelyal mikrokist ve orta düzeyde ön kamara reaksiyonu izlendi. Yüksek büyütmede yapılan biyomikroskopik muayenede şüpheli korneal tam kat yaralanma alanı görüldü ve gonyoskopik muayene yapılmasına karar verildi. Goldmann üç aynalı lens kullanılarak yapılan gonyoskopik muayenede alt iridokorneal açıda yabancı cisim izlendi. Yabancı cisim cerrahi olarak çıkarıldı. Cerrahiden iki hafta sonra korneal ödemde azalma izlendi. Sebebi belli olmayan kornea ödeminde ön kamarada yabancı cisim ayırıcı tanıda dikkate alınmalıdır.

**Anahtar Kelimeler:** İridokorneal aç, korneal ödem, yabancı cisim.

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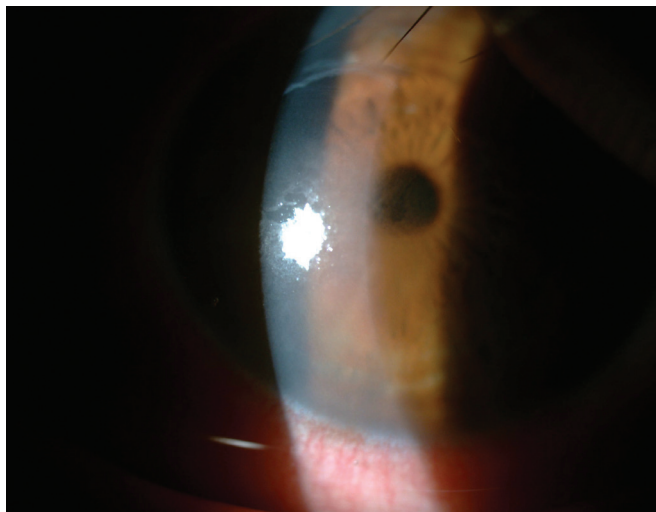
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## INTRODUCTION

Penetrating ocular trauma is an important cause of vision loss and may be associated with the presence of intraocular foreign body (IOFB). Anterior chamber foreign bodies account for up to 15% of all intraocular foreign bodies.<sup>1</sup> The clinical manifestations and courses of anterior chamber foreign body vary depending on their composition, shape, and reaction with adjacent structures. Penetrating ocular injury require meticulous investigation and early intervention. Intraocular foreign bodies resulting from penetrating ocular injuries are usually detected at the first visit. However, missed IOFB may be present in different clinical aspects that may limit its detection and symptoms may only become apparent after a prolonged period of time. This case example shows the presence of an IOFB lodged in the inferior chamber angle making it impossible to detect without performing gonioscopic examination. Some kinds of anterior chamber foreign bodies such as glasses, plastics, and even cilium are well tolerated,<sup>1-4</sup> on the other hand, some glasses, metals, cotton fibers, and graphite may induce persistent iridocyclitis, bullous keratopathy or stromal keratitis.<sup>1,5,6</sup>

## CASE REPORT

A 55-year-old male patient presented with visual disturbance, hyperemia, and epiphora in his left eye, which last about one month. He was diagnosed as herpetic stromal keratitis at another center, and received 3% acyclovir ointment (5 times/day), 1% topical prednisolone acetate (8 times/day), and oral acyclovir 400 mg (1 time/day) for treatment. His medical and familial history was unremarkable. On clinical examination his best-corrected visual acuity (BCVA) was 20/20 in the right and 20/70 in the left eye. Intraocular pressure were 16 mm Hg in both eyes. Slit lamp examination of the left eye showed stromal edema involving the inferior half of the cornea, epithelial microcysts, and moderate anterior chamber inflammation (Figure 1).

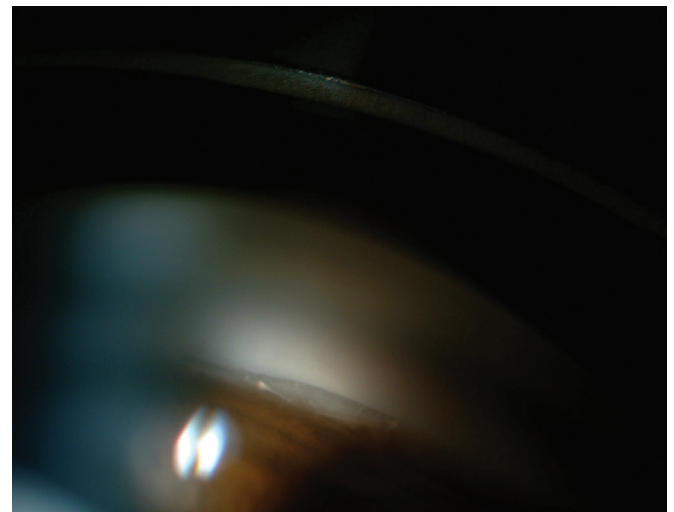


**Figure 1:** Slit lamp examination of the left eye showed conjunctival hyperemia, localized corneal stromal edema with epithelial microcysts.

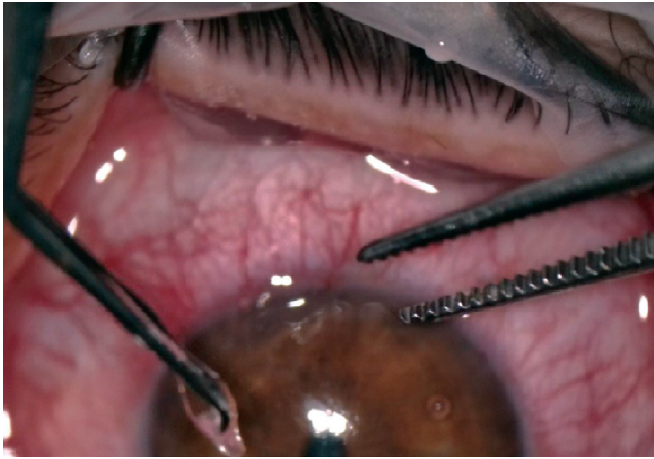
Thorough history taking revealed that the patient had ocular trauma approximately one year earlier. On detailed anterior segment examination using high magnification biomicroscopy, we observed a suspicious corneal wound. Goldmann 3-mirror examination was performed and retained foreign body was located at the inferior iridocorneal angle (Figure 2). Dilated fundus examination of the both eyes were normal. The foreign body was surgically removed via corneal incision, which measured about 0.3x1.0 mm in size (Figure 3). During the surgical procedure, we noticed that the foreign body was mobile in the chamber and there was no evidence of fibrosis or granulation reaction. The surgery was uneventful without any complication such as haemorrhage. After two weeks, anterior chamber inflammation was reduced and the visual acuity recovered to 20/50, however, subtle corneal edema and microcysts still remained (Figure 4).

## DISCUSSION

There are a few case reports in the literature regarding intraocular foreign bodies presenting in the anterior chamber.<sup>2-10</sup> A retained lens fragment in the anterior segment after phacoemulsification with an intact posterior capsule which caused an inflammatory reaction in the anterior chamber as well as corneal edema of varying severity has been reported previously.<sup>11</sup> In our case, the patient's history revealed a previous ocular trauma however, we were not able to see any IOFB without a gonioscopic examination. The lack of this examination at his first treatment center resulted in unnecessary use of antiviral therapy due to incorrect diagnosis of herpetic keratitis. The persistent corneal edema that was possibly due to mechanical contact between IOFB and corneal endothelium, resolved after surgical removal. The IOFB seems to be plastic in nature which may explain the low-grade inflammation in the anterior chamber.



**Figure 2:** Foreign body demonstrated on gonioscopy.



**Figure 3:** The foreign body removed from the anterior chamber angle.



**Figure 4:** Two weeks after removal of the foreign body, the previous corneal stromal edema and epithelial microcysts were partially resolved.

This might also be the reason of the lack of severe clinical signs and symptoms, during a relatively long period (approx. 1 year) of IOFB presence. This case showed that localized corneal stromal edema or endothelial dysfunction may be related to retained intraocular foreign body, and the physician should always arouse suspicion and perform a meticulous examination, including gonioscopy, especially in cases with doubtful history of ocular trauma. The authors contributions to the study were as follows: conception and design (MOZ, CK), acquisition of data (MOZ), analysis and interpretation of data (MOZ, EC, IT), article drafting and revising (EK, CK), and final approval (CK).

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