

Çocuk Bir Hastada Konjonktival Konkresyona Bağlı Persistan Korneal Epitel Defekti

Persistent Corneal Epithelial Erosion In a Child Patient Caused by Conjunctival Concretion

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ÖZ

Bu olguda, üst kapakta konjonktival konkresyona bağlı persistan korneal epitel defekti mevcut olan çocuk bir hastanın tanı ve tedavisi sunulmuştur.

4 aydır persistan korneal epitel defekti olan 2 yaşında çocuk bir hasta poliklinik şartlarında değerlendirildi. Tek taraflı epifora, sağ üst göz kapağında kızarıklık ve şişlik şikayeti mevcut idi. Çocuğun ailesi tarafından, daha önce farklı göz doktorları tarafından değerlendirildiğini ve çeşitli göz damlaları kullanmalarına rağmen herhangi bir iyileşme olmadığı belirtildi. Biyomikroskopik ön segment muayenesinde sağ korneada santral epitel defekti görüldü. Daha önceki tedaviden yanıt alınamaması, hastanın yaşı ve yabancı cisim şüphesi nedeniyle inhalasyon anestezisi altında muayene önerildi. Genel anestezi altında, lakrimal lavaj yapılarak, kanalın açık olduğu görüldü. Sağ üst göz kapağı çevrildiğinde 0.4x0.2 cm gri-beyaz oluşum görüldü. Lezyonun üzerinde konjonktiva mevcut değildi. Kitle forseps yardımıyla eksize edildi. Histopatolojik olarak epitelyal hücre döküntüleri ve dejeneratif ürünler görüldü. Klinik ve patolojik bulgular eşliğinde, konjonktival konkresyon tanısı konuldu.

Bu olguda, persistan korneal epitel erozyonu olan çocuklarda, üst göz kapağını çevirmenin önemi vurgulanmıştır. Nadir görülen bir durum olmasına rağmen, tek taraflı persistan epitel defekti olan çocuklarda ayırıcı tanıda konjonktival konkresyon da bulundurulmalıdır.

Anahtar kelimeler: Konjonktival konkresyon, persistan korneal epitel defekti

ABSTRACT

This case report presents diagnosis and management of a child patient with persistent corneal epithelial defect caused by conjunctival concretion of the upper eyelid.

A 2-years old child patient who had interestingly persistent corneal epithelial erosion for 4 months was brought to our outpatient clinic. The patient had complained of single sided epiphora, erythema and swelling of her right upper eyelid. Her parents pointed out that they referred to a different eye specialist and also applied various topical drops but no clinical improvement has occurred. Right central corneal epithelial injury was noted in biomicroscopic anterior segment examination. Due to patient age, failure of the previous treatment and foreign body suspicion; examination under inhalation anesthesia was proposed to parents. Under anesthesia, lacrimal lavage was performed and no obstruction was observed. When the right upper eyelid was everted, single 0.4x0.2 cm sized grey-white mass was seen. There was no conjunctiva on the top of the lesion. The mass was excised with forceps assistance. Histopathologically epithelial cell casts and degenerative products were observed. According to clinical and pathological findings, this conjunctival mass was diagnosed as conjunctival concretion.

This case emphasizes the importance of upper eyelid eversion in cases with persistent corneal epithelial erosion in children. Although it is a rare condition, conjunctival concretion must be kept in mind especially in differential diagnosis of children with single-sided persistent corneal epithelial erosions.

Keywords: Conjunctival concretion, persistent corneal epithelial defect

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INTRODUCTION

Persistent corneal epithelial erosion is usually caused by chronic ocular surface disease, mechanical trauma and genetic disorders of stroma or epithelial basement membrane.¹ Conjunctival concretions are small, hard, white or yellow dotted conjunctival lesions. These lesions include epithelial cell casts and degenerative products.² Generally patients are asymptomatic; but when it makes a spur formation on the surface of the conjunctiva, ocular irritation and foreign body sensation can be observed. In so much that they may scratch the cornea.³

CASE REPORT

Here in, it is aimed to present a 2-years old child patient with a history of conjunctival concretion in her right upper eyelid who had interestingly persistent corneal epithelial erosion for 4 months. The patient was brought to our outpatient clinic with the complain of single sided epiphora, erythema and swelling of her right upper eyelid. Her parents pointed out that they referred to a different eye specialist and also applied various topical drops but no clinical improvement has occurred. At her ophthalmologic examination; minimally swelling, epiphora and conjunctival rush were observed. Right central corneal epithelial injury was noted in biomicroscopic anterior segment examination. Laboratory investigations were all in normal range. In computerized tomography (CT) which had been performed one month ago by an another medical center, right preseptal area was widened asymmetrically when compared with the left, and no foreign body was detected (photo-1).

Due to patient age, failure of the previous treatment and foreign body suspicion; examination under inhalation anesthesia was proposed to parents. Informed consent was obtained from the parents. Under anesthesia, lacrimal lavage was per-



Photo 1. CT image of the patient

formed and no obstruction was observed. When the right upper eyelid was everted, single 0.4x0.2 cm sized grey-white mass was seen. (photo 2) There was no conjunctiva on the top of the lesion. The mass was excised with forceps assistance. Topical tobramycine 3% (Tobrex®, Alcon, Belgium) and artificial tear drops were administered 4 times a day for a week. No recurrence was observed during 3 months of follow up period. Histopathological and immunohistochemical examinations of excised material demonstrated dense eosinophilic spaces which are composed of conjunctival epithelial cells, polymorphonuclear leukocytes, histiocytes and neutral mucopolysaccharides which were stained with cytokeratin, LCA and CD-68, and PAS, respectively. Histopathologically epithelial cell casts and degenerative products were observed (Photo-3a,3b,3c,3d). According to clinical and pathological findings, this conjunctival mass was diagnosed as conjunctival concretion.

DISCUSSION

Recurrent corneal epithelial erosions are commonly-seen entities and majority of the cases are presented as surface



Photo 2. Conjunctival concretions and corneal epithelial erosion are seen on right eye under general anesthesia.

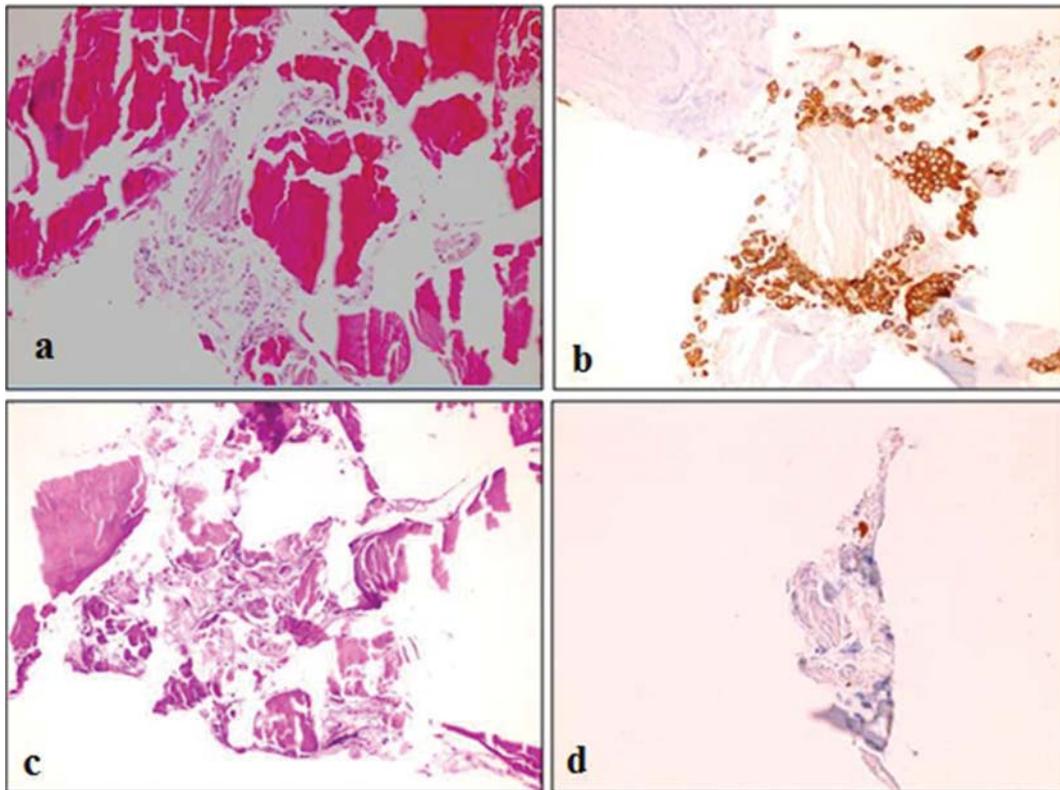


Photo 3. a) Conjunctival epithelial cells, polymorphonuclear leukocytes, a small amount of histiocytes and neutral mucopolysaccharides constitute, dense eosinophilic spaces. (Haematoxyline Eosin StainX20). **b)** Conjunctival epithelial cells positive stained with pancytokeratin in wide eosinophilic spaces (PAN-CKX20). **c)** Wide spread eosinophilic areas composed of dense neutral mucopolysaccharides are stained with PASX20. **d)** A small amount of histiocytes staining with CD-68 immuno-histochemical (CD-68X40).

epithelial abrasion resulting from nail, paper or mascara trauma. Rarely, chemical and thermal burns can also cause recurrent epithelial injury. In this case, recurrent epithelial injury was caused by a conjunctival concretion of the upper eyelid. Conjunctival concretions reconcile with trachoma related degenerations,⁴ keratoconjunctivitis and sulphadiazine eyedrops. There was no systemic illness nor chronic eye disease in our case. Cause of conjunctival concretions is variable but most commonly associated with aging and long standing inflammation. What makes our case interesting is the age of the patient. There are some articles in the literature reporting that conjunctival concretions are associated with crystallization of some eye drops, especially sulfadiazine. Our patient might have used sulfadiazine eye drops for a reason such as conjunctivitis.

Haicl et al.⁵ has been reported that the rate of conjunctival concretions as 39.6% in a study with 500 patients. In the same study, it was indicated that concretions which are superficial, including hard deposits and single ones tend to be more common. In terms of being superficial, hard, and single, this case is in accordance with the literature. But it differs from literature with the age of presentation and symptomatic behaviour of persistent epithelial lesion. In a study by Haicl et al.⁵, they reported that the mean age of the patients with concretion was 46 years (13-103 years) and their

youngest patient was 20 years old. Our case is the youngest patient in the literature with conjunctival concretion which is confirmed by histopathological examination. In childhood period, conjunctival concretion does not take a place in differential diagnoses for persistent corneal epithelial erosion. This fact explains why the patient could not be diagnosed for a while.

This case emphasizes the importance of upper eyelid eversion in cases with persistent corneal epithelial erosion in children. Although it is a rare condition, conjunctival concretion must be kept in mind especially in differential diagnosis of children with single-sided persistent corneal epithelial erosions.

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