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Case Report

Bacterial Conjunctivitis Accompanying Spontaneous Subconjunctival Abscess

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Abstract

Subconjunctival abscess is a rare form of ocular infections. Subconjunctival abscesses often develop in the eyes with previous surgery or trauma. It is extremely rare in patients without surgery or trauma. In this study, we aimed to present a rare case of subconjunctival abscesses associated with spontaneous bacterial conjunctivitis. The patient was admitted to the hospital with complaints of redness, swelling and burning in two eyes. He said he used antibiotic drops for about a week, but his complaints did not decline. A subconjunctival abscess was detected in the right eye. There was no history of previous ocular surgery and trauma. Abscess drainage and subconjunctival antibiotic injection were performed. Oral and topical antibiotics were prescribed. There was no growth in culture. The third week was a complete recovery. In conclusion, spontaneous subconjunctival abscess formation should be considered in the differential diagnosis in unhealed eyes after bacterial conjunctivitis.

Keywords: Bacterial conjunctivitis, topical moxifloxacin, subconjunctival abscess.

Introduction

Subconjunctival abscess is a rare form of ocular infections. Subconjunctival abscesses often develop in the eyes because of previous surgery or trauma (1). In the literature, passed before surgery or trauma in non-spontaneous subconjunctival eyes abscess, it is extremely rare (2, 3). It is extremely rare in patients without surgery or trauma.

In this study, we aimed to present a rare case of subconjunctival abscesses associated with spontaneous bacterial conjunctivitis.

Case Report

A 65-year-old male patient was admitted to the hospital with complaints of redness, bulging, and stinging in both eyes. Patient's consent was obtained for this study. He said he used antibiotic drops for about a week, but his complaints did not decline. There was no history of previous ocular surgery, trauma, or a foreign body; he denied having any systemic diseases (diabetes, rheumatoid arthritis), alcoholism, drug addiction or use of immunosuppressive drugs. Infection laboratory examinations were performed from the patient: complete blood count, erythrocyte sedimentation rate, C-reactive protein, urine analysis and chest X-Ray. Laboratory investigations were normal. On ophthalmologic examination, the corrected visual acuity of both eyes was 20/20. Slit-lamp examination revealed excessive conjunctival hyperemia and mucopurulent secretion. A subconjunctival abscess of approximately 5x5 mm was detected in the nasal region of the right eye, between the pterygium and the caruncle (Fig. 1). His anterior chamber was quiet, and the posterior segment examination was normal, also without evidence of inflamma-

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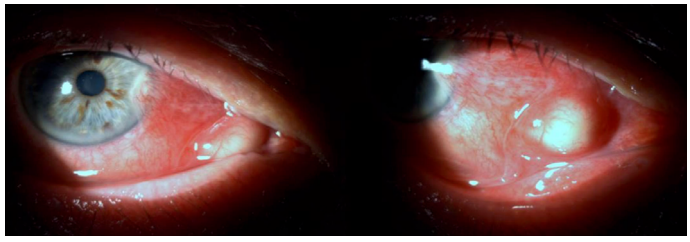

Figure 1. Appearance of the patient at presentation.

tion. The vitreous body was transparent, and there was no cell on the biomicroscopy. Ophthalmological examination of the left eye was normal. Abscess drainage and 1 mg/0.2 ml subconjunctival moxifloxacin injection were performed under the topical anesthesia (Fig. 2). Oral amoxicillin+clavulanic acid combination 1000mg twice daily, and topical moxifloxacin drops five times daily were prescribed. After the treatment, the patient's complaints and symptoms began to decline and the patient healed completely on the third-week control (Fig. 3).

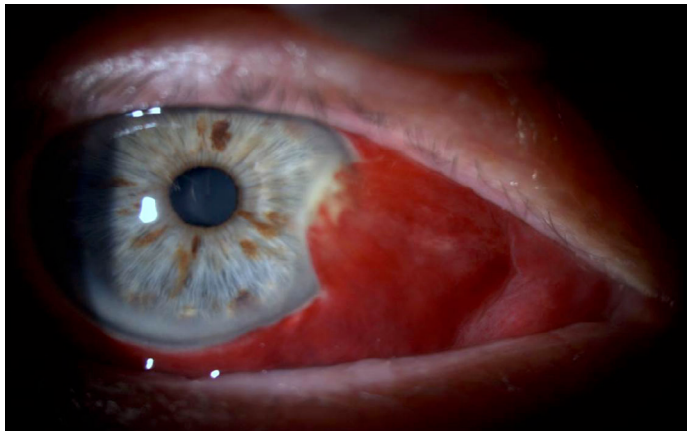

Figure 2. Subconjunctival haemorrhage after the abscess drainage and subconjunctival moxifloxacin injection.

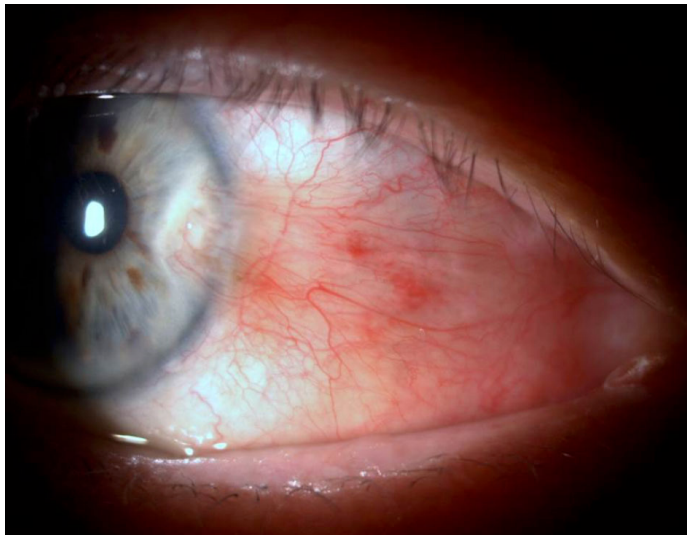

Figure 3. Appearance of the patient at the third week.

No recurrence was seen in our patient in two years and three months. Since purulent material was seen during abscess drainage, we used empirically subconjunctival and then topical, systemic antibiotics. We sent only culture samples of purulent material, and no histological examination was performed. There was no growth in the culture of conjunctiva and abscess material. Although the material was sufficient, there was no reproduction. The effects of antibiotics on the treatment indicated the presence of infection, and perhaps adequate reproductive conditions could not be achieved.

Discussion

Subconjunctival abscess is a rare ocular infection, seen especially in pterygium, strabismus surgery, or trauma (1, 3). Spontaneous subconjunctival abscess development has been reported in two cases in the literature. Yang et al. reported a 61-year-old woman with a spontaneous subconjunctival abscess in the presence of pterygium, similar to our case. In the preliminary diagnosis of nodular scleritis, topical steroid treatment was initiated, but they excised the pterygium upon the growth of the lesion and observed that there was purulent discharge from the nodule. Abscess drainage was performed and *Haemophilus Influenzae* was detected in the cultures taken (2). Brooks et al. reported a spontaneous subconjunctival abscess in a 27-year-old woman. Similarly, *haemophilus influenzae* reproduction was detected in the cultures obtained from the case (3). *Haemophilus Influenzae*, a rare pathogen of infectious scleritis, was reported in three patients with ocular surgical history such as cataract extraction and strabismus (4). *H. influenzae* is a rare bacterium that can invade the intact cornea or conjunctival epithelium (5-8). *Neisseria gonorrhoeae* (9), *Neisseria meningitidis* (10), *Corynebacterium diphtheria* (11), *Listeria monocytogenes* (12), and *Shigella* (13) have similar potencies among the organisms. In our patient, there was no reproduction of conjunctiva and abscess material culture. The adequate response to antibiotic treatment supported the presence of infection. However, lack of reproduction suggested that the environmental conditions were not favorable. There was no known predisposing factor in our patient; however, a history of small trauma or contact with an infected person cannot be excluded. There was spontaneous subconjunctival abscess development in our patient and although this was not seen in culture, it could be explained by the invasion of intact tissues by some bacteria. In our case, topical and systemic antibiotic treatment was successful, and healing has been achieved. In conclusion, spontaneous subconjunctival abscess formation is extremely rare but should be considered in the differential diagnosis in unhealed eyes after bacterial conjunctivitis.

Disclosures

Informed consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

Authorship Contributions: Involved in design and conduct of the study (SGI); preparation and review of the study (FO); data collection (SGI).

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