

A 1.5 cm-long unknown subconjunctival grass inflorescence misdiagnosed as relapsing conjunctivitis for one year

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SUMMARY: Şen E, Elgin U, Koç F, Öztürk F. A 1.5 cm-long unknown subconjunctival grass inflorescence misdiagnosed as relapsing conjunctivitis for one year. Turk J Pediatr 2011; 53: 699-701.

Foreign bodies are usually detected at the first visit. However, they may be overlooked sometimes, especially in children, and may cause some clinical conditions including unilateral relapsing conjunctivitis.

A five-year-old girl was presented to the emergency clinic of our hospital with epiphora, purulent discharge, eyelid swelling, and a foreign body feeling in her right eye. The symptoms had been present for one year, and the patient was treated for relapsing conjunctivitis. In slit lamp examination performed with difficulty because of the patient's lack of cooperation, a localized edema and erythema were observed under the right eyelid. An exploration under general anesthesia was planned, and a 1.5 cm-long subconjunctival grass inflorescence was removed.

An unknown subconjunctival foreign body should be considered in each patient with relapsing conjunctivitis, especially in children, even in the absence of ocular trauma.

Key words: grass inflorescence, relapsing conjunctivitis, subconjunctival foreign body.

Foreign bodies of the ocular surface are frequent in any age group and can be located on the cornea, conjunctival surface of the eye, in the cul-de-sac behind the lower eyelid, or on the inner surface of the upper eyelid¹⁻³. They can also enter the subconjunctival space through a conjunctival laceration. They are usually detected at the first visit, but can be missed sometimes, especially in children, and may cause some clinical aspects including unilateral relapsing conjunctivitis⁴.

Grass inflorescence (*Hordeum murinum*) is a kind of plant. There are some previous reports about its aspiration into the respiratory system⁵⁻⁷. We describe an interesting case of an unknown 1.5 cm-long subconjunctival grass inflorescence, which was misdiagnosed and treated as relapsing conjunctivitis.

Case Report

A five-year-old girl was referred to the emergency clinic of Ankara Ulucanlar Eye Research Hospital for ophthalmic evaluation

with epiphora, purulent discharge, eyelid swelling, and a foreign body sensation in her right eye. According to the medical history taken from her parents, the symptoms had been present for the last year, and the patient had been treated for relapsing conjunctivitis with different kinds of topical antimicrobial agents. She had no history of any ocular and/or systemic problems or ocular trauma.

The visual acuities of both eyes were 20/20 with tumbling E Snellen charts. Ophthalmic examination of the left eye revealed completely normal findings. Slit lamp examination of the right eye was performed with difficulty because the patient did not cooperate due to the irritation. In addition to an eyelid swelling, epiphora, purulent discharge, and generalized conjunctival hyperemia, a localized edema and an uncertain yellow reflex were observed under the right upper eyelid. Fundus examination revealed normal findings.

A surgical exploration was planned and topical ketorolac tromethamine 0.5% and netilmicin



Figure 1. A subconjunctival foreign body was observed upon up-and-down movement of the upper eyelid.

0.3% were offered during preparation for general anesthesia. On the second day of the treatment, clinical remission was seen, and a subconjunctival foreign body was observed upon up-and-down movement of the upper eyelid (Fig. 1). Perioperatively, an approximately 1.5 cm-long grass inflorescence was extracted from the subconjunctival space after the incision of bulbar conjunctiva under the upper eyelid (Fig. 2). Topical netilmicin 0.3% and fluorometholone 0.1% drops were used for two weeks postoperatively. In the four-month-long follow-up period, she did not have any complaints regarding her eye.

Discussion

Grass inflorescence is a kind of plant that is an uncommon aspirated material into the respiratory system. It can migrate through the tracheobronchial tree because of its characteristic features⁵⁻⁷. Karagöz et al.⁵ reported a nine-year-old case with grass inflorescence aspiration without significant disturbances, presenting as a tumor of the chest wall. Bronchiectasis and hemoptysis have also been reported associated with this plant^{6,7}. Our patient had an unknown 1.5 cm-long subconjunctival grass inflorescence in the subconjunctival space associated with relapsing conjunctivitis, and to the best of our knowledge, there have been no previous reports like our case.

Ocular foreign bodies are usually small pieces of metal, sand, or plants and generally can be detected easily. Nevertheless, especially in children, an unknown foreign body is one



Figure 2. A 1.5 cm-long grass inflorescence removed from the subconjunctival space.

of the most important reasons for unilateral relapsing conjunctivitis or some other clinical conditions⁴. Lakshmanan et al.² reported a 10-year-old boy with signs and symptoms suggestive of orbital cellulitis. He was treated with intravenous antibiotics until spontaneous extrusion of a wooden foreign body through the upper lid two days later. They thought that the piece of wood with a sharp end penetrated the orbit through a small entry wound. Sakata et al.³ reported a case similar to ours. Their case was a three-year-old boy with an extremely large foreign body (8 × 6 × 6 mm plastic toy) that had remained for six months in the subconjunctival space of his eye. He was also misdiagnosed and treated as relapsing conjunctivitis, as was our case. In both their case and our case, foreign bodies were completely entrapped by conjunctival tissue and remained in the upper conjunctival fornix without devastating irritation and spontaneous extraction. In our case, the plant must have been accidentally pushed into the eye by the patient, after which it migrated into the subconjunctival tissue, aided by its characteristic firm and sharp organs, or “spikelets”. The uncooperative nature of the child made the slit-lamp examination difficult and was the major reason for the misdiagnosis.

In conclusion, it is important not to underestimate the ocular manifestations when examining a patient. Our report emphasizes the importance of the patient’s medical history and scrutiny during clinical examination even in simple conjunctivitis. This should be kept in

mind by ophthalmologists and pediatricians alike because most parents consult the pediatrician of their children in acute conjunctivitis. An unknown subconjunctival foreign body should be considered in each patient *with* relapsing conjunctivitis, especially in children, even in the absence of ocular trauma.

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