



Conjunctival Foreign Body a Rare Presentation

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Aim: Detection of subconjunctival or intra orbital wooden foreign bodies and its retrieval is important, because of severe blinding complications secondary to infection can occur. We describe, a case of post traumatic subconjunctival wooden foreign bodies retained in conjunctival cul-de-sac of upper fornix, presenting as conjunctival granuloma.

Case Report: A 50 year male patient was accidentally hit by a wooden stick on the right eye 25 days ago, while he was working in the paddy field. On examination, a granulomatous growth was present on the temporal side of the bulbar conjunctiva. Two wooden foreign bodies were removed from the conjunctival granulomatous mass.

Discussion: The superficial foreign bodies of the conjunctiva are common and the ocular protective mechanisms normally extrude superficial foreign bodies. The clinical course of orbital foreign bodies depends upon their composition. The organic foreign bodies like wood if left untreated results in sight threatening complications.

In our case, wooden foreign bodies penetrated subconjunctivally into the upper fornix and presented as conjunctival granuloma. Under topical anaesthesia (xylocaine 4%) two wooden foreign bodies were removed from conjunctival granuloma. The patient recovered uneventfully with antibiotic drops and oral analgesics and anti-inflammatory drugs.

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Conclusion: In patients presenting with post traumatic conjunctival granuloma, we should strongly suspect a subconjunctival retained foreign body before initiating treatment.

Keywords: Conjunctiiva; granulation tissue; foreign body; growth; wood.

1. INTRODUCTION

Conjunctival foreign bodies of the eye are common. Wooden ocular foreign bodies are common in rural areas particularly in agricultural workers. Most of the times, foreign bodies are small particles of dust, stone piece, insect wing or small iron particles. Foreign bodies may settle on the bulbar conjunctiva, upper or lower fornix or on the cornea but most commonly retained in the upper conjunctival cul-de-sac. Sometimes wooden foreign bodies penetrate and are retained under the conjunctiva. In due course the foreign bodies are covered by granulation tissue which may simulate the cockscomb type of tuberculosis of conjunctiva [1]. This is a rare presentation of the conjunctival foreign body.

2. CASE REPORT

A 50 years male patient who is an agricultural worker, came with a complaint of redness, pain, foreign body sensation and discharge of right eye for the last 25 days. He was accidentally hit by a wooden stick on the right eye 25 days ago while he was working in the paddy field. Then he was treated by antibiotic eye drops and pain killers by local doctors for about 20 days, but the problem

was not solved. He presented to our hospital outpatient Department.

On examination of the Right eye there was mild upper lid oedema. A pedunculated polyp like growth was present on the temporal side of the bulbar conjunctiva. The growth was not attached to the cornea. Cornea was clear and fluorescein stain was negative. Anterior chamber was of normal depth with clear contents, pupil was reacting to light. Fundus examination was within normal limits except a few lenticular opacities. Visual acuity was 6/18 in Right eye. The left eye was found normal and visual acuity was 6/9.

On careful examination of the right eye there were two small yellowish white spots noticed on the surface of the polyp like growth of the conjunctiva which appeared like pus points (Fig. 1). Under topical anaesthesia (4% lignocaine) the surface of the growth was manipulated with plain forceps by which it was found that those points are actually the tips of wooden foreign bodies (Fig. 2). Two pieces of wooden foreign bodies were removed from the pedunculated growth of the conjunctiva, one foreign body was measuring about 2cm and other one about 4 cm (Fig. 3. Fig. 4). There were no signs of perforation of the globe.



Fig. 1. Pus like points of foreign bodies



Fig. 2. Projected foreign bodies from conjunctival granuloma

Moxifloxacin eye drops 6 times per day and tab aceclofen two times per day for 5 days was prescribed. All inflammatory signs and conjunctiva granulation markedly reduced within one week. Patient's vision in right eye improved to 6/9 by the end of one week.

3. DISCUSSION

The superficial foreign bodies of the conjunctiva are common, such as small particles of dust or steel and insect wings [2]. These foreign bodies impinge on the cornea or conjunctiva [1]. Ocular protective mechanisms which include blinking and tearing normally remove superficial foreign body that comes in contact with the ocular surface. [3]

The orbital foreign bodies are divided in to three types [4] 1. Metallic. 2. Non-organic like glass pieces. 3. Organic foreign bodies like wood. The clinical course of the foreign bodies depends upon their composition [5]. Some metallic foreign bodies remain quiescent for long period of time

without causing any problems. But organic foreign bodies like wood cause sight threatening complications. They may remain asymptomatic for variable periods and manifest with delayed onset of conjunctival granuloma, cellulitis and abscess. When a foreign body with large surface area gets lodged in the conjunctiva, initially, there is an acute inflammatory response in the form of exudation of plasma and fibrin and the foreign body becomes embedded. This is followed by a chronic inflammatory response resulting in the formation of granuloma [2]

In our case, wooden foreign bodies penetrated subconjunctivally into the upper fornix and in due course covered by granulation tissue, presented as pedunculated conjunctival growth which simulated cockscomb type tuberculosis of the conjunctiva [1]. Occasionally, as in our case, foreign body retained in the fornix, encapsulated by mucus, embedded in the underlying stroma may cause local inflammatory response. In case of conjunctival foreign bodies, we must search for signs of globe perforation.



Fig. 3. Removed wooden foreign bodies



Fig. 4. Measurement of foreign bodies

An intraorbital foreign body is an object that lies within the orbit but outside the ocular globe [4]. In the literature they reported evidence of orbital foreign body migration toward the cranium [6]. So, it is important to identify and remove intraorbital wooden foreign bodies as early as possible to prevent further complications.

Identification or localization and removal of Intra orbital wooden foreign body poses a challenge to the ophthalmologist. He has to use appropriate imaging modality for evaluation of intra orbital wooden foreign body. Plain X- ray has limited role in the diagnosis of intraorbital wooden foreign body. The detection rate of plain X-ray is very low (0-15%) [7]. B-scan Ultrasonography has a very limited role in localization of intraorbital wooden foreign body. The CT- Scan findings of intraorbital wooden foreign body are variable and may be similar to orbital fat and muscle. The MRI scan is better at demonstrating intra orbital wooden foreign bodies [8,9]. It can distinguish between air and wood easily.

In our case, there was definite history of injury with wooden stick present. The tips of wooden foreign bodies were visible on manipulation of conjunctival granulomatous mass. Therefore imaging investigation was not done to locate foreign body.

In our case, we identified retained intra orbital wooden foreign bodies immediately on presentation of the patient. The retained intraorbital foreign bodies were removed under topical anaesthesia (4% lignocaine). Double eversion of upper lid was done to locate any hidden foreign bodies in the fornix. But no foreign body was found.

Long and multiple foreign bodies in the orbit following an apparently trivial trauma is rare. In the literature, two pieces of wood measuring 5.1 cm and 4.5 cm, respectively were retained for six weeks have been reported [6]. In the present case, two pieces of wooden foreign bodies measuring 2cm and 4cm retained for 25 days. The possibility of such retained multiple foreign bodies in the orbit must be considered in an injury caused by organic material, particularly when signs of inflammation persist after routine therapy or with conjunctival granulation mass.

4. CONCLUSION

Patients presenting with pedunculated polyp like growth of conjunctiva, particularly from

agricultural field with history of trauma, a retained conjunctival wooden foreign body should be ruled out first [10].

In conclusion, we would like to emphasize that with meticulous ocular examination and good clinical acumen we can avoid vision threatening complications because of retained foreign bodies and eye care professionals should keep in mind a retained foreign body as a differential diagnosis when dealing with inflamed conjunctival growths.

CONSENT

A written informed consent taken from the patient.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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