

# CASE REPORT

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## FOREIGN BODY GRANULOMA OF CONJUNCTIVA AFTER THORN INJURY: A CASE REPORT

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**ABSTRACT:** As foreign body wounds of the eye are very common, many ocular injuries are caused by thorns, fragments of wood or husks of grains, which are retained in eye initiating granulomatous reaction, very commonly seen in rural places. Foreign body granuloma should be considered in differential diagnosis of conjunctival epibulbar lesions like episcleritis, scleritis and squamous dysplasia. Here we present a case of conjunctival foreign body granuloma developed after a thorn injury in a 19 years old young male, from rural area.

**KEYWORDS:** Conjunctival granuloma, Epibulbar lesions, Foreign body, Granuloma, Thorn prick injury.

**CASE HISTORY:** A 19 years old healthy man from rural area came to outpatient department with complaints of discomfort, pricking sensation, watering and redness of his left eye, following a thorn prick injury one week before while working in the crop field. Since then he was applying eye drop bought over the counter from nearby pharmacy, details not provided. On examination, the visual acuity was 6/6 in both eyes. Slit lamp examination revealed a red elevated lesion measuring about 4mm x 3 mm in size at the temporal side of the limbus in the exposed part of the bulbar conjunctiva of the left eye in which a black coloured, impregnated foreign body was visible, vegetative in origin, loosely connected with adjacent tissues (Fig. 1), The foreign body which was measuring about 3 mm in length buried in the deep tissues of the conjunctiva was removed under local anaesthesia, after applying the wire speculum, which got easily dislodged because of the necrosis of the surrounding deep conjunctival tissues with slight bleeding (Fig. 2). The bleeding was controlled and subcutaneous injection of Gentamycin 0.5 ml was given and the eye was bandaged. Patient was started with systemic anti-inflammatory and antibiotic drugs. The specimen was sent to histopathological analysis for evidence of any fungal elements associated with foreign body. Next day the bandage was removed. Eye was quiet and moxifloxacin-dexamethasone eye drop instilled topically which was continued for a week along with oral Ampicillin-Cloxacillin, 500 mg bid for 5 days. On follow up, after a week eye condition was clinically satisfactory.

On histopathological analysis, specimen revealed no fungal growth and showed massive infiltrate composed with multiple giant cell (of foreign body type). Presence of multiple plasma cells, lymphocytes and focal neutrophils, confirms the foreign body conjunctival granuloma. (Fig. 3).

**DISCUSSION:** Protective mechanisms of the eye like tearing and blinking usually remove any foreign body that comes in contact with the ocular surface. Occasionally, retained foreign body may be encapsulated by mucous, embedded in the underlying stroma, and later induces a local

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inflammatory response.<sup>[1]</sup> Conjunctival granulomas not being a rare entity are not recognized frequently by ophthalmologists. Granuloma formation can occur in the conjunctiva as an acute or chronic inflammatory response to foreign materials lodged in it. Inciting agents for granuloma formation in the conjunctiva that have been reported in literature includes cilia, caterpillar hair, natural and synthetic fibers.<sup>[2]</sup> Basu R N in his article of similar case, granuloma due to broom stick injury was reported.<sup>[3]</sup> Few case reports in literature are of splinter of wood, thorn, cotton fibers from clothing and after explosions especially in war wounds.<sup>[4]</sup>

The majority of patients come with symptoms of ocular irritation and foreign body sensation in the eye following injury. While the number of reports in the literature is limited, accurate reporting may actually reveal a higher incidence of this entity.<sup>[5]</sup>

Microscopic examination reveals granulomatous inflammatory cell response with lymphocytes, plasma cells, eosinophils and foreign-body giant cells surrounding the exogenous foreign body.<sup>[6]</sup>

Foreign body granuloma should be considered in differential diagnosis of conjunctival cyst, nodular episcleritis or parasitic conjunctival granulomas and histopathology is crucial in diagnosis of this condition.<sup>[7]</sup>

Histopathological and ultra-structural evaluation appears to be the only way to specifically diagnose this condition with certainty, especially so if it is a metallic foreign body.

Treatment of conjunctival granuloma mainly involves surgical removal of the foreign body and excision of the granuloma.<sup>[8]</sup>

Prognosis following surgical excision of these granulomatous lesions is excellent.<sup>[9]</sup>

An awareness of this condition will allow early and accurate diagnosis and treatment, which subsequently spare the risks and expense associated with the condition.

**CONCLUSION:** Any epibulbar lesions of acute onset with the history of coming in contact with foreign body must be viewed seriously and retained foreign body should be removed as quickly as possible especially if it is of vegetative origin since it may cause fungal infection of the eye.

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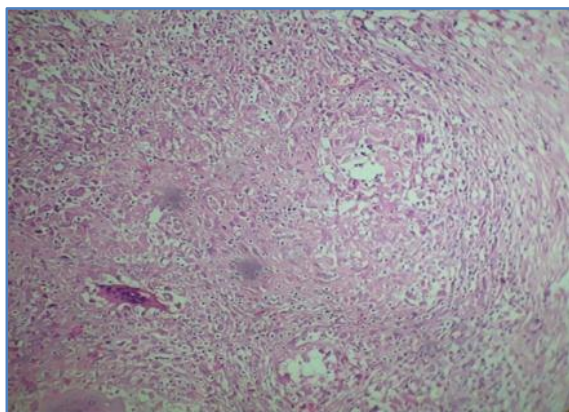
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**Fig. 1: Foreign body granuloma in left eye before surgical removal**



**Fig. 2: After surgical removal of foreign body granuloma**



**Fig. 3: Histopathological slide of granuloma showing giants cells and epithelioid cell**

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