

# A Case Report of Pyogenic Granuloma of the Upper Eyelid.

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## ABSTRACT

The overgrowth of tiny blood vessels in large number is called as pyogenic granuloma. It is harmless and usually occurs on the skin or mucous membrane. Mostly it arises without any reason, but in some cases minor trauma that does not heal properly is the reason. It can occur at any age, but are most common in children and young adults. Here a case report of pyogenic granuloma of the upper eyelid is presented.

**Keywords:** Eyelid, Pyogenic granuloma, Tumor of eyelid.

## INTRODUCTION

Pyogenic granuloma is considered as a polypoid form of the capillary hemangioma. It usually occurs on the cutaneous or mucosal surfaces.<sup>[1]</sup>

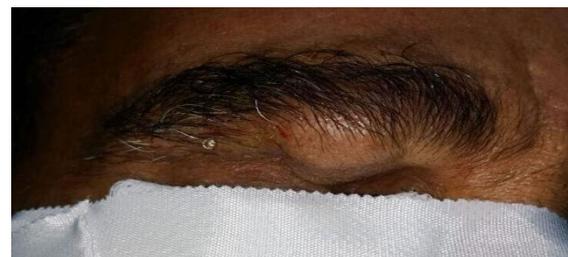
Clinically pyogenic granuloma appears as well-established polypoid, friable, purple-red, smooth surfaced or ulcerated mass which bleeds easily.<sup>[1]</sup>

The pyogenic granuloma usually occurs at skin, or mucous membrane, but at the various parts of the eye is uncommon location. The present case reports a case of pyogenic granuloma of the upper eyelid.

## CASE REPORT

A 57 year old male patient presented to the ophthalmology department with a complaint of swelling on upper eyelid of right eye since 15-20 days. The swelling was gradually increasing in size and also causing irritation to the eyeball on movement. Therefore excision of the swelling was decided. [Figure 1] A straight incision was given in the middle of the swelling [Figure 2] and the mass was removed and sent for the histopathological

Examination. [Figure 3 & 4] The wound was closed with the help of 4-0 silk sutures. Histopathological examination had shown nonkeratinized stratified epithelium and the underlying fibrocellular connective tissue. The connective tissue had shown proliferations of numerous blood vessels and endothelial cells. Moderate amount of acute and chronic inflammatory cells are present. Therefore histologically pyogenic granuloma diagnosis was given.



**Figure 1: Photograph of the lesion.**



**Figure 2: Incision was given on the center of the lesion.**

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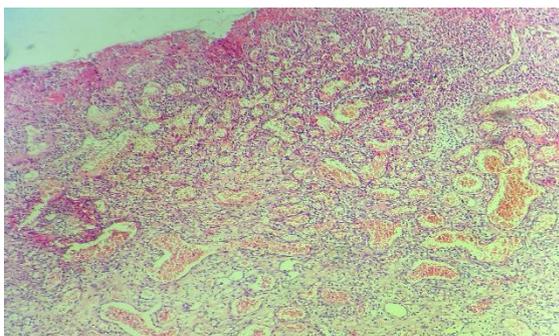
**Figure 3: Intra-operative photograph at the time of excision of the lesion.**



**Figure 4: Specimen sent for the histopathological examination.**



**Figure 5: Post-operative photograph of the patient with presence of sutures on wound.**



**Figure 6: Histological picture of the lesion.**

## DISCUSSION

The pyogenic granuloma is a acquired benign vascular lesion that can appear anywhere on the skin or mucous membranes. Most it occurs in the oral cavity, but occasionally it may occur on the cornea, eyelid skin, limbus, or bulbar or palpebral conjunctiva of the eye.<sup>[2]</sup>

It was described first by Poncet and Dor and believed that it was caused by a fungal organisms like botryomycosis, while some others implicated the etiology by the pyogenic microorganisms specially streptococci.<sup>[1,2]</sup>

As the inflammatory part of the pyogenic granulomas is prominent, most of the early pathologists believe that these were of infectious origin.<sup>[1]</sup>

Subsequently it was regarded as a form of the granulation tissue stimulated by invasion of pyogenic bacteria after disruption of the epithelial surface by minor trauma. The lesion is actually a hemangioma consisting of a loose vascular stroma with acute and chronic inflammatory cells. Thus the term pyogenic granuloma is a double misnomer as the lesion is neither granulomatous nor it is pyogenic.<sup>[1,2]</sup>

It is classified as variation of capillary hemangiomas presenting as small reddish tumors commonly occurring after trauma or even after surgical manipulation.

Despite the fact that the most of the ophthalmological reports on these lesions are associated with chalazion and ocular squint surgery, there are some reports of spontaneous development even on the conjunctival sac. Other ocular cases have also been described on the eyelids and on the cornea, as these tissues on the external ocular surface are more exposed.<sup>[1,3]</sup>

On histopathology it shows lobulated cellular hemangioma in a fibromyxoid matrix. Each of the lobule consists of a larger vessel surrounded by a meshwork of small capillaries stromal edema can be prominently present. Both acute and chronic inflammatory cells (predominantly neutrophils, lymphocytes, and plasma cells) are scattered throughout the lesion, particularly in its superficial layers. Secondarily invading microorganisms are occasionally present in the superficial aspects of ulcerated lesions.<sup>[1]</sup>

In our case of eyelid pyogenic granuloma, the inflammatory process can occur due to dynamic eye movements, or an exposure to external contact that would be capable of causing local trauma; such process would eventually culminate in a tumor.<sup>[3]</sup>

The management approach must be individualized for each patient. in most cases simple excision is effective, it can require general anesthesia in the case of a child. Conversely, an adult who develops a pyogenic granuloma would require only local anesthesia to facilitate immediate removal of the lesion.<sup>[1]</sup>

## CONCLUSION

The present article had shown an uncommon case of pyogenic granuloma of the upper eyelid.

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