

Topical Steroid in External Hordeolum – A Case Report

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ABSTRACT

External Hordeolum (Stye) is an infection of eyelid sebaceous gland that commonly caused by Staphylococcus Aureus. This is the most common diseases of the eye

which is routinely reported. In such cases, therapies such as eyedrops of antibiotics, NSAIDs, and topical steroids are usually preferred. The present case have been treated with antibiotics (eyedrops & oral) and steroid ointment, where the ointment was applied upon the inflamed part of eye lid.

Although in the management of stye, steroid is commonly indicated but limited reports has been published earlier with such therapy. After steroid (dexamethasone eye ointment) application, severe pain subsided at the inflamed area gradually. It proposes a good approach to minimize the pain gradually with steroid.

Keyword : *Hordeolum, Topical Steroid, Pain.*

1. Introduction

Hordeolum is one of the most common disease of the eye, and there are various causative factors related to the disease. Incidence rates for hordeolum is not available because most cases are not reported [1]. Hordeola tend to occur in younger people, but are not limited to any age, gender, or racial group [2,3]. It is a common, painful, inflammation of the eye lid margin that is caused by bacterial (typically staphylococcal) infection. The infection affects glands of the eyelid and can be internal or external [4]. An external hordeolum which is also called as stye is suppurative inflammation of eyelash follicles and its associated sebaceous glands of zeis or apocrine sweat gland of Moll form on the outside of the lids whereas internal hordeolum are infections of the meibomian sebaceous gland lining the inside of the eyelids. Most hordeola are external and whereas internal hordeolum is not often found.[5]

A clinical feature of external hordeolum includes acute pain associated with swelling of lid, mild watering, foreign body sensation and photophobia. Its signs are divided into two stages, stage of cellulitis which is characterized by localized firm, red, tender swelling at the lid margin associated with marked swelling followed by stage of abscess formation characterized by visible pus point on the lid margin in relation to the affected cillia. Symptoms of internal hordeolum are similar to hordeolum externum, except that pain is more intense due to swelling being embedded deeply in the dense fibrous tissue. On examination, hordeolum internum can be differentiated from hordeolum externum by the fact that lid margin and that pus usually points on the tarsal conjunctiva and not on the root of cillia.[6] [7].

In many cases, the inflamed lesions are self resolving, drains spontaneously and resolves untreated; however, the infection can spread to other ocular glands or tissues and recurrences are common. If unresolved, acute internal hordeolum can become chronic or develop into a chalazion (cyst). [8] It is common practice to use one or several interventions for the treatment of hordeolum, including warm compresses applied at home, local antibiotic drops,

systemic antibiotics or steroids, anti-inflammatory and analgesics, lid scrubs, lid massages and others including incision and drainage. If stye burst, care must be taken to cleanse the wound to prevent re-infection. [8].

A case of a 28-year-old male patient of external hordeolum successfully managed in 5 days by adopting antibiotics (drops & systemic) and topical steroid (dexamethasone ointment).

2. Case Report

A 28 year old male patient presented with complaints of swelling and redness over the right lower eyelid margin with severe throbbing pain which hampered routine activities and mild itching since 5 days.

On Examination :

On local examination of right eye, localized, hard, red tender swelling at the right lower eyelid margin was observed. Sclera and cornea appearing normal. Vital signs were stable with no significant abnormality of the nervous system, cardio-vascular system and respiratory system. Per abdomen examination was normal.

3. RESULT

In the present case, patient was administered with Neomycin Sulfate, Polymyxin B Sulfate (Eyedrop), and Amoxicillin 3 times daily at 500mg. Dexamethasone eye ointment was also applied to the affected side 3 times daily. Just after that, the severe throbbing pain was reduced gradually. Swelling and reddening was also reduced and gradually resolved on next 2 day. On the fifth day, swelling, reddening, and pain was also diminished. The patient was advised to avoid exposure to light and dust to wear goggles.

3.1 Discussion

External hordeolum is a common disease that may occur at any age. This is a suppurative inflammation of zeis glands in the eyelid that caused by bacterial infection. Although the course of the disease is relatively short, instances of hordeolum are painful and bothersome. Furthermore, improper management of the underlying cause of the infection may lead to recurrent infections. In the early stages, the gland becomes swollen, hard, and painful and usually the whole edge of lid is edematous, later on, an abscess could form which generally points near the base of one of the cilia [4,5,6,7]

Non-surgical treatments for hordeolum include the application of warm or hot compresses, the use of lid scrubs to promote lid hygiene, digital massage, and the administration of antibiotics or steroids for few days. Typically, the intent of these interventions is to reduce healing time and to relieve the symptoms associated with the lesion. Thus, the timing for the interventions of interest would be during the first week after onset. Beyond one week, it is believed that hordeolum may resolve on its own or may require surgical incision and curettage. Secondary to the resolution of the presenting hordeolum, other aims of the interventions are to minimize the risk of the infection worsening, spreading to other areas, or becoming recurrent [8, 9].

Steroids has long been known as anti-inflammation agent. For hordeolum steroids can be applied topically as ointments or eyedrops. Since external hordeolum has a short course, as little as one steroid treatment could be effective in reducing healing time and relieving symptoms associated with the inflammation [10, 11]

Whereas Antibiotics can be administered locally at the site of the infection or given systemically. As most cases of hordeolum are caused by a staphylococcal species, antibiotics should be effective against the bacteria. The application of topical antibiotics may reduce healing time by fighting against the causative bacterial infection and reducing inflammation. Many topical medications include ingredients to relieve the symptomatic pain of hordeolum. Local administration of antibiotics can also be by injection. Systemic antibiotics are sometimes used when local antibiotics are not effective or when the infection is not localized. [10, 11, 12]. In this cases, steroid agent dexamethasone eye ointment along with antibiotics Neomycin Sulfate, Polymyxin B Sulfate (Eyedrop), and Amoxicillin were administered. An addition of steroid agent (dexamethasone ointment) as a treatment in this case was found very effective in not only reducing pain but also subsided the swelling and reddening .

4. CONCLUSIONS

External hordeolum is common disease manifested as lid swelling. Topical steroids addition to the therapeutic regiments is a cost-effective and an easily accessible treatment method that can reduce severe throbbing pain, swelling, and reddening as a signs of inflammation.

5. REFERENCES

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