

The Importance of Steroid Therapy in Staphylococcal Marginal Keratitis with Hypopyon

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Abstract

Introduction: Marginal keratitis of staphylococci is of inflammatory origin. It interferes with the peripheral part of the cornea and can lead to ulceration. The diagnosis is based on all corneal and laboratory examinations. The disease begins with clinical signs where we have increased inflammation. Only after sterilization and sterile culture begins corticosteroid therapy

Materials and Methods: In the study we took a 38-year-old man who first appeared with many clinical signs.

Here's included a decrease in vision for 13 days reddish photophobia narrowing of the occult rhythm and pain. During the examinations it was noted that the disease affects both eyes. It appears with marginal ulcer. Prescribes the non-functioning of the meibomian gland and changes in the back chamber of the iris-crystal-cell.

Results: initially the patient was presented with numerous clinical signs. These signs were developed for 13 days. The patient lowers vision photophobia watering pain in both eyes. Both eyes were infected with and purulent. There could be no examination of the fundus oculi as a result of many disturbances. It was noted that after the onset of steroid therapy there was a noticeable improvement in the condition of the patient.

Conclusions: The purpose of the study we have presented is to point out or point out that starting treatment with steroid and antibiotic therapy as early as possible eliminates unrequited changes in the eye. On the contrary, it can lead to eye loss.

Keywords: Corneal Scrapings; Hypopyon; Photophobia; Staphylococcal Marginal Keratitis

Introduction

Marginal staphylococcal keratitis can lead to ulceration. is the peripheral disorder of the cornea [1]. Infections of the cornea may be caused by the presence of bacteria inside the cornea. The more you insert into the cornea, the more infectious the disease. Can touch the front and back of the eye. The disease can progress to corneal ulcer [2]. *Staphylococcus* is one of the bacteria that causes external inflammation of the eye. Can cause conjunctivitis [3].

Corneal ulcers can also be caused by *Acanthamoeba*. these are often more painful and appear with multiple corneal infiltrates [4]. Corneal ulcers are numerous. They may appear as ulcer with marginal ulcer hypopyon and spasmodic ulcer. The greater the surface of the cornea is affected by the staphylococci, the greater the inflammation.

Risk factors

Corneal trauma can also be caused by foreign bodies. We advise contact lenses which, when incorrectly used, may cause eye inflammation. It is worth mentioning and the use of asepsis measures when using the lenses. Reuse of contact lenses are a major risk to bacterial infections.

Risk factors

- Perform scraping and microbial culture
- Treat infection with fortified broad-spectrum antibiotics, which will be modified according to culture results
- Treat the inflammation and prevent corneal melting

Restore corneal integrity by promoting healing and reducing haze [5].

Treatment and drugs

The treatment of ulcers is usually done with antibacterial points. This is in the case of small ulcers. If ulcers are larger, antibiotics are used with broad spectrum action. We also have the use of steroid therapy to reduce inflammation. When they are caused by parasites or mussels, the treatment is specifically directed [2]. As soon as the keratitis cases are caught and treated, the sooner they pass. It is important to have frequent visits to the ophthalmologist for eye disease prevention. It is better to prevent than to cure. After treatment with antibiotics and steroids, corneal transplantation may need to be performed for a better viewing [6]. For all ulcers, treatment may also include a cycloplegic, such as atropine 1% or scopolamine 0.25% 1 drop tid, to decrease the ache of a corneal ulcer and to reduce the formation of posterior synechiae. In severe cases, debridement of the infected epithelium or even penetrating keratoplasty may be required. Patients who are poorly compliant or who have large, central, or refractory ulcers may need to be hospitalized. Very selective patients can be treated adjunctively with a corticosteroid drop (e.g. prednisolone acetate 1% qid for 1 wk then tapered over 2 to 3 wk). The final appearance of the scar and final visual acuity are not improved with topical corticosteroids. Topical corticosteroids do decrease the pain and photophobia, and speed the increase in visual acuity, significantly. Because there is a very small risk of the ulcer worsening, adding topical corticosteroids is only indicated when a patient needs to get back to normal functioning (e.g. work, driving etc.) as soon as possible. Such treatment should only be prescribed by ophthalmologists and should be restricted to patients in whom clinical and microbiologic evidence indicates a favorable response to antimicrobial treatment and who can be closely followed [7]. The symptoms in the case of ulcers are progressive. Appear with rash pain, watering and lowering of the sight [4].

Ulcers cause epithelial defects in the cornea. The perforation of the cornea may occur in the case of a great inflammation by giving us and uveitis. Uveitis can be front or back that appear with a clear clinical picture. Eye inflammation can affect all layers of the eye. They can also touch all of its contents leading to ocular occlusion [8].

Ulcers can cause and uveitis, giving changes in the front of the eye. They can cause both anterior and posterior synechite associated with hypopia [9]. Examinations include angiography fluorescence and laboratory examinations. Detection and course vary by case [10]. The response to steroid therapy is very fast. This makes it possible to eliminate further attacks and increase body immunity to respond [11]. Steroid and antibiotic therapy usually significantly reduces clinical signs. If this does not happen we should immediately eliminate the other causes of corneal ulceration [12].

Method

Participants

Case Report- A 38 year old man patient presented with complaints of redness, mild pain, photophobia and diminution of vision in both the eyes for past 13 days. Ocular examination, microscopic examination and the steroid therapy was used in this case study.

Materials

Extensive research in international journals indexed at Pub-Med. The key words used were referred to as "photophobia", "*Staphylococcus aureus*", "prevention", "risk factors", "corneal scrapings", "marginal keratitis", "hypopyon". As far as language is concerned, the study included only articles in English. Control for final inclusion of the articles was done independently by the authors in order to reduce the errors. The search was done on consistent with the systematic review guidelines of the literature where are references.

Results

In the study we took a 38-year-old man who first appeared with many clinical signs.

Here's included a decrease in vision for 13 days reddish photophobia narrowing of the occult rhythm and pain. During the examinations it was noted that the disease affects both eyes. It appears with marginal ulcer. Prescribes the non-functioning of the meibomian

gland and changes in the back chamber of the iris-crystal-cell. initially the patient was presented with numerous clinical signs. These signs were developed for 13 days. The patient lowers vision photophobia watering pain in both eyes. Both eyes were infected with and purulent. There could be no examination of the fundus oculi as a result of many disturbances. It was noted that after the onset of sterode therapy there was a noticeable improvement in the condition of the patient. The purpose of the study we have presented is to point out or point out that starting treatment with steroid and antibiotic therapy as early as possible eliminates unrequited changes in the eye. On the contrary, it can lead to eye The patient was discharged on steroid and antibiotic regimen and complete healing was seen at 2 weeks.



Figure 1: The case of a 65 year old patient.

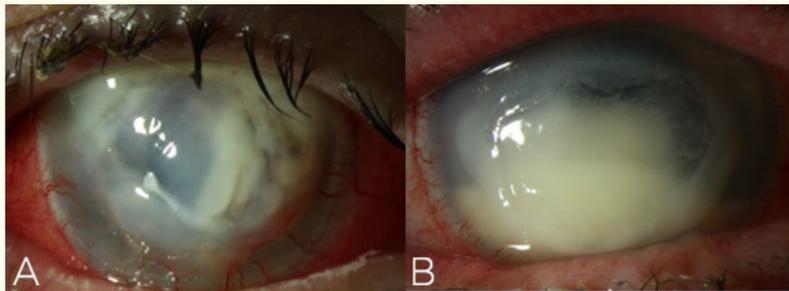


Figure 2: The case of a 61 year old patient.



Figure 3: The case we have taken in the study a 38 year old patient.

Discussion

Differential diagnosis should be done with herpes simplex virus. Diagnosis was decided after sterile corneal examinations. The masses of asepsis are preserved. Counselor and patient for maintaining the hygiene and use of steroids. Important is the clinical examination to make the difference between the infectious kerate from the immune system.

A study in Germany were studied 38 patients here were 17 female and 21 male patients. The mean age was 53 +/- 20 years. The patient's complaints included recurrent red eyes with discomfort and pain. Clinically, a squamous blepharitis (63%) and conjunctivitis (87%) were present. Upon biomicroscopic evaluation, a corneal involvement could be found in 80% of cases. In 66% of cases conjunctival swabs were positive for staphylococci. Several types of keratitis and corneal involvement are found. An epithelial keratitis is caused by toxic mechanisms. Marginal infiltrates and ulcers indicate an antigen-antibody reaction. Phlyctenulae indicate a delayed immune reaction Complications include vascular pannus, corneal scarring, and rarely corneal melting and ulcers. Therapy depends on the severity of the

inflammation and the underlying pathomechanism. This includes reduction of toxin-producing organisms by hygiene of the lid margins and application of topical disinfectants and antibiotics. With immunological phenomena topical steroids are required [3].

A study case of an immunocompetent woman with atypical marginal keratitis. She presented with recurrent episodes of multiples microabscess distributed in a triangular pattern associated with stromal oedema and anterior chamber uveitis, affecting both eyes, but not simultaneously. The episodes responded to steroid drops, corneal inflammation was coincidental with a worsening of her blepharitis in the affected eye and *S. aureus* was isolated from the lids [13].

Other study - an 83-year-old woman presented with a red right eye with associated visual loss. She described grittiness, denying significant pain. Symptoms had progressed over several months, on a 2-year history of epiphora and 'irritable' eyes. Marginal keratitis is a common cause of a red, uncomfortable eye, often presenting bilaterally with peripheral, discrete infiltration with circum-limbal sparing. It is non-infectious and results from an enhanced cell-mediated immunity, at the limbus, to antigens of *Staphylococcus aureus* on the lids; treatment is therefore with a combination of topical antibiotics and steroids, and usually results in a rapid resolution of signs and symptoms [12].

Conclusions

The purpose of the study we have presented is to point out or point out that starting treatment with steroid and antibiotic therapy as early as possible eliminates unrequited changes in the eye. On the contrary, it can lead to eye loss.

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