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Research Article

Approach to Mooren Ulcer

Gamze Maden[1]*, Bora Deniz Argon[1], Serap Yurttaşer Ocak[1], Mehmet Egemen Karataş[2] and Mustafa Nuri Elçioğlu[1]

[1]*Department of Ophthalmology, Okmeydani Training and Research Hospital, Istanbul, Turkey*

[2]*Department of Ophthalmology, Sisli Hamidiye Etfal Training and Research Hospital, Istanbul, Turkey*

***Corresponding Author:** Gamze Maden, Department of Ophthalmology, Okmeydani Training and Research Hospital, Istanbul, Turkey.

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Abstract

Mooren ulcer is a painful and chronic peripheral corneal ulcer. It is thought that the pathogenesis of this disorder includes an autoreactivity to a cornea-specific antigen and cell-mediated and humoral immune mechanisms may play a role in the inception and continuation of the destruction of the cornea. Despite the fact that an effective treatment methods of Mooren ulcer is not fully available, various treatment options have been tried and used. We wanted to present the efficiency of the topical cyclosporin use, one of these treatment options in a case who was diagnosed with Mooren ulcer, through this case presentation.

Keywords: Mooren Ulcer; Cyclosporin; Cornea

Introduction

Mooren ulcer is a rarely-seen peripheral corneal ulcer which has been based on an autoimmunity disorder. Unlike typical corneal degenerations, a chronic and painful ulcer is present with variable epithelial loss and stromal thinning in the ulcer area. Typically the ulcer begins in the periphery of cornea and it may spread circumferentially first and then towards to center of the cornea later. Approximately 25% of whole cases are bilateral but the disease may be seen at different times in both eyes [1]. This disorder is often progressive if not treated and it may spread all over the cornea in time. Immunological and histological researches show that autoimmune mechanisms play a role in the evaluation of Mooren ulcer. For this reason steroids and other immunosuppressive agents have an important role in the treatment. In this case report, the etiology, clinical features and treatment methods of mooren ulcer will be mentioned.

Case Presentation

A 66-year-old female presented with pain, redness, foreign object sensation, tearing in left eye for fifteen days. Best-corrected visual acuities were 20/20 OD and 2/20 OS. Slit-lamp biomicroscopy revealed that the conjunctival vessels around the lesion were dilated in the left eye. Wide, massive stromal neovascularisation at the superior and right half of peripheral cornea was also noted. Anterior chamber was clear and other examinations were normal. The right cornea and anterior chamber were clear in the right eye. The intraocular pressures were 15 mmHg in the right eye and 14 mmHg in the left eye (The patient was using 2 different anti-glaucomatous drugs). To rule out the possibility that limbal vasculitis in this patient might be associated with some systemic rheumatologic diseases, we referred him to an internal diseases specialist. According to result of our consultation, there was no finding was observed that may cause limbal vasculitis. We diagnosed the patient with Mooren ulcer and started to treatment with topical cyclosporin 2 x 1, topical steroids 4 x 1 and artificial tears 4 x 1. After a week, in her first control, we observed a regression and ceased topical corticosteroids and we continued the treatment with topical cyclosporin and artificial tears with same dosage. And the patient was called to weekly inspections. It is detected that when the patient was in care of topical cyclosporin treatment, the complaints of her were gradually decreased and the lesions were regressed. During the follow-up, intraocular pressures were regulated and her BCVA was increased. The final BCVA was 14/20 and it is observed in the first month control. In the last examination, the patient had no complaint, her BCVA was 14/20, the vascularisation was decreased and there was a corneal haze on her cornea.

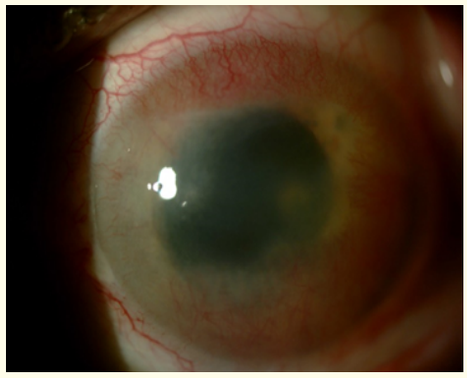

Figure 1: Before treatment.

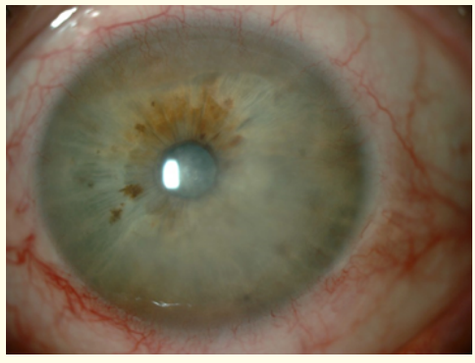

Figure 2: After treatment.

Discussion

The first complaints of patients with Mooren ulcer are usually blurred vision caused by irregular astigmatism. They also complain about redness, photophobia and very severe pain. Our patient did consult an ophthalmologist with redness in the eye, blurred vision and pain. At the initial stage of Mooren ulcer, it may be observed that anterior stromal and peripheral corneal infiltration. After that in this area, there would be epithelial loss, stromal thinning. The ulcer begins in the periphery of cornea and it may spread circumferentially first and then towards to center of the cornea later. The local spread may stop spontaneously, however it is usually progressive.

In severe cases, ulcer may spread to the entire cornea, similar changes may also be observed in the sclera. The healing begins behind the active edge of the ulcer and the healing zone is thin, vascularised and opaque. In this period the patient has severe pain, photophobia and lacrimation symptoms. Because of that the optic axis is affected, the visual acuity decreases. Perforation may be observed spontaneously or because of a slight trauma [1-4]. In our case, there was an ulcer area progressing to central cornea from peripheral cornea. And in this area, cornea had become thinner and vascularised. There was no scleral involvement. Cornea was oedematous and the decrease in visual acuity was significant. Although the etiology of Mooren ulcer is not yet known, evidence is mounting that autoimmune mechanism play role. Many studies in recent years make us think that cell-mediated and humoral immune mechanisms may play a role in formation of Mooren ulcer. Mooren ulcer has been reported that to be more susceptible to type 2 hypersensitivity reactions.

Despite the fact that an effective treatment methods of Mooren Ulcer is not fully available, various treatment options have been tried and used such as topical steroids, contact lenses, acetylcysteine, cyclosporins and as a surgical treatment limbal conjunctival recession or lamellar keratoplasty. In recent years it has been reported that topical immunosuppressive/immunomodulator agents are effective alternative treatment options. Due to it is newer, non-invasive, has less systemic and local side effects, targets the pathogenesis of the disease, we did choose the immunomodulator treatment option for our case.

Conclusions

On this case basis it is shown that topical cyclosporin treatment is an effective treatment option in the treatment of Mooren ulcer. For an objective outcomes, this study has to be implemented in a large series of cases.

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