Case Report

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Macular Toxoplasmosis: Treatment with Intravitreal Clindamycin and Dexamethasone

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ABSTRACT

Two cases of macular toxoplamosis treated with intravitreal injections of clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml) are reported. First case, 16-year-old feminine adolescent with macular retinitis was treated with intravitreal injection of clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml), as well as treatment with trimetropim-sulfamethoxazole and oral prednisone. Second case, 29-year-old man with macular lesion, treated with Intravitreal injection of clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml) was indicated, as well as treatment with trimetropim-sulfamethoxazole and oral prednisone. Both cases recovered visual acuity and a practically normal macular state.

Keywords: Macular Toxoplasmosis Treatment; Toxoplasmosis Vitritis; Climdamycin Intravitreal Injection Plus Dexamethasone Intravitreal Injection

Introduction

Toxoplasmosis or infection by the intracellular protozoan Toxoplasma (T. gondii) is the most common cause of posterior uveitis in immunocompetent patients P [1]. Due to self-limited nature of the lesions, oral antibiotic treatment is generally reserved for lesions involving the macula or optic nerve –zone 1- or peripheral lesions associated with severe vitritis. Both oral treatments, the classic one with sulfadiazine, pyrimethamine and folinic acid and the currently most widely used one, with a regimen of trimethoprim-sulfamethoxazole in association with folic acid, can cause well-known adverse effects [2].

Case Report

Two cases of macular toxoplasmosis treated with intravitreal injections of clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml) are presented. The first one corresponds to a 16-year-old feminine adolescent who presented with a visual acuity (VA) of 20/320 in the right eye and a focus of macular retinitis. Optical coherence tomography (OCT) revealed a bacillary detachment of the neuroepithelium with hyperreflectivity of the internal layers, consistent with the onset of necrosis. It was decided to start treatment with intravitreal injection of clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml), as well as treatment with trimetropim-sulfamethoxazole and oral prednisone. One week after the start of treatment, VA is 20/62.5 and neurosensory detachment and necrotic appearance is significantly less. Patient discontinued treatment with trimethoprim-sulfamethoxazole after three weeks due to a probable allergic reaction to sulfonamides. In an interval of one month, VA improved to 20/32 after a single injection and there was evidence of a severe reduction in the thickness of the neurosensory retina with minimal intraretinal cysts and foveal infiltrate. At two months, VA remains stable at 20/32 and the disappearance of the foveal infiltrate, less edema and intraretinal cysts and loss of internal and external segments of photoreceptors can be seen (Figure 1). The second case is a 29-year-old man who had received a bone marrow transplant 6 years earlier for Hodgkin lymphoma, who presented with visual acuity of 20/100 in the left eye and a whitish macular lesion. The OCT shows a hyperreflective lesion of the juxtafoveal inner layers. Intravitreal injection of clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml) was indicated, as well as treatment

with trimetropim-sulfamethoxazole and oral prednisone. One week after the start of treatment, VA is 20/80 and there is evidence of a decrease in macular thickness with evolution towards a macular hole. A new intravitreal injection is decided. After two injections, in four weeks, VA improved to 20/32 with closure of the macular hole. Four months after the start of treatment, VA has fully restored to 20/20 (Figure 2).

Figure 1: Bacillary detachment with frank reduction in OCT. Multicolor retinography image with decreased diameter of the macular lesion.

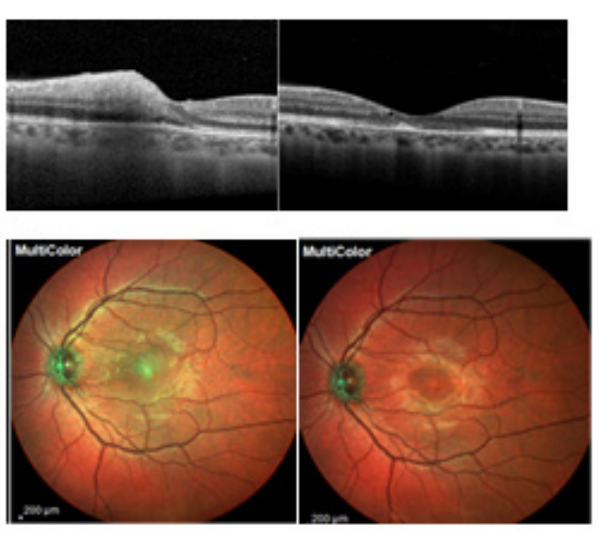

Figure 2: Decreased size of the infiltrate in internal layers on OCT and reduction of the infiltrate in multicolor image after intravitreal treatment.

Discussion

Toxoplasmosis is the most common cause of posterior uveitis, not only in immunocompromised patients but also in a generic way. Toxoplasma gondii infection is a global disease that has come to affect 500 million people worldwide [3] with ocular involvement in a high number of cases, causing significant loss of vision and even blindness. Ocular toxoplasmosis is one of the main clinical manifestations of toxoplasmosis infection [4], Specifically, it manifests itself in the retina of patients, this being a primary focus of infection. Its diagnosis is predominantly clinical. Usual treatment for this ocular affectation is the use of combined oral antibiotics such as trimetropim-sulfamethoxazole [5], along with glucocorticoids [6] such as oral prednisone, to limit damage from inflammation. The use of intravitreal injection of clindamycin associated with intravitreal injection of dexamethasone has also been described by several authors. Some authors have compared oral therapy against intravitreal therapy and have found no differences in terms of results [7].

Conclusion

Intravitreal injection of clindamycin (1mg/0.1ml) associated with dexamethasone (0.4mg/0.1ml) has been safe and effective in our patients, with considerable and rapid improvement in visual acuity. Therefore, it can be considered a good adjunct to oral antibiotic treatment and even an alternative in the case of patients allergic to sulfonamides. It could also be considered a therapeutic alternative due to its good systemic profile in pregnant women or patients with hematological problems. According to our experience, the administration schedule should be individualized, based on the visual improvement and the tomographic appearance of the lesions.

Data Availability Statement

The original contributions presented in the study are included in the article. Further inquiries can be directed to the corresponding authors.

Ethics Statement

The patients provided their written informed consent to participate in this study.

Conflict of Interest

The authors declare that the study was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest

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