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Sympathetic ophthalmia

Oftalmia simpática

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Abstract

To report the case of a patient with sympathetic ophthalmia (OS), with serous detachment of retinal documented by spectral domain optical coherence tomography (OCT), indocyanine green (ICG) and angiofluorecephography (AGF). The diagnosis was made in a routine consultation and clinical treatment was initiated.

Keywords: *Sympathetic Ophthalmia/diagnosis; Sympathetic Ophthalmia/therapy*

Resumo

Relatar um caso de um paciente portador de Oftalmia Simpática (OS), com descolamento seroso da retina documentado através de tomografia de coerência óptica de domínio spectral (SD OCT), indocianina verde (ICG) e angiofluoreceinografia (AGF), que o diagnóstico foi realizado em uma consulta de rotina e iniciado tratamento clínico .

Descritores: Oftalmia Simpática/diagnóstico; Oftalmia Simpática//terapia

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Introduction

Sympathetic Ophthalmia (SO) is an endogenous non-infectious uveitis limited to the eye characterized by bilateral inflammation usually affecting all components of the uvea called panuveitis.[1]

This is a very rare clinical condition, with uveal damage usually of traumatic or surgical origin. The injured eye is called exciting, whereas the contralateral eye subsequently affected is called sympathising.[2-4].

The etiopathogenesis is not clearly understood yet. Several evidences suggest that it is an autoimmune reaction against ocular antigens exposed in the exciting eye characterized by non-necrotizing diffuse granulomatous inflammation of the entire uveal tract, with identical histological changes in the exciting eye and the sympathising eye.[3]

Studies indicate that SO accounts for 1% to 2% of all cases of uveitis. However, its true incidence and prevalence have been difficult to establish not only because of its rare occurrence but also because its diagnosis is based primarily on clinical data.[5]

This disease presents an insidious onset after a period of variable latency of at least ten days, with a progressive development.[2]

SO is usually associated with penetrating, accidental or surgical ocular trauma, but nevertheless, it describes cases of sympathetic ophthalmia following non-penetrating processes or trauma, which presupposes that ocular perforation is not essential for the development of the disease.[3]

SO diagnosis is based primarily on the patient's history and clinical presentation. Imaging studies such as fluorescein angiography, indocyanine green, B-mode ultrasound, and optical coherence tomography may be helpful in confirming the diagnosis, but laboratory tests should also be carried out to exclude infectious uveitis.[6]

Case Report

AJJF, 22, male, went to the ambulatory of Fundação Hilton Rocha (FHR) in June 2015 for routine ophthalmologic appointment, with a previous history of penetrating trauma by firearm in the left eye (LE) and evisceration occurred 25 days before.

The ophthalmologic examination showed visual acuity of 20/20 (Snellen table) in the right eye (RE) and absence of light perception in the left eye (LE).

The anterior segment biomicroscopy examination showed no alterations in the right eye, and left anophthalmic cavity in good aspect.

Applanation tonometry showed a pressure of 14mmHg in the right eye.

RE fundoscopy showed serous detachment of the retina in the upper and perimacular temporal regions, with fovea preserved and absence of vitreitis.

Six days afterwards, the patient evolved to worse VA (20/100) and serous detachment.

In view of the development of the clinical condition and the results of the complementary tests, the clinical treatment with oral corticosteroids and an application of 1 ml of subtenonian triamcinolone acetonide started. (Figures 1, 2A, 2B and 3)

The patient received 70 mg/day of prednisone (Meticorten®), with gradual reduction, evolving with significant improvement of visual acuity and retinal serous detachment in the first week of treatment.

After 15 days of corticosteroid therapy, he presented visual acuity of 20/20 and complete resolution of retinal serous detachment (Figures 4 and 5).

Corticosteroid treatment started precociously with an excellent anatomical and functional result.

Currently, maintenance therapy with oral prednisone 20 mg is maintained.

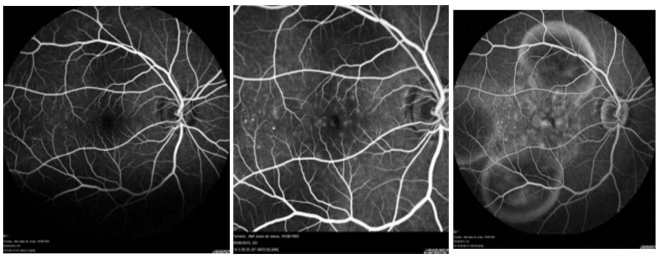

Figure 1: Angiofluorecephography obtained on 06/29/2015 showing multiple hyperfluorescent areas at the EPR and late stage showing areas of placental hyperfluorescence at the EPR and contrast accumulation in areas of serous detachment.

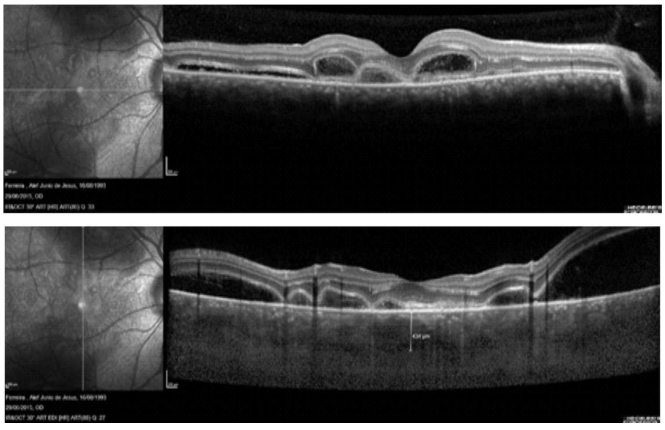

Figure 2: (A and B) Spectral domain optical coherence tomography (SD-OCT) images performed on 06/29/2015 showing multiple multifocal retinal serous detachments.

Figure 3: ICGA showed choroidal vessel abnormalities characterized by poor delineation of its walls, areas of hypofluorescence in the early and intermediate phases that persisted until the late phase of the examination.

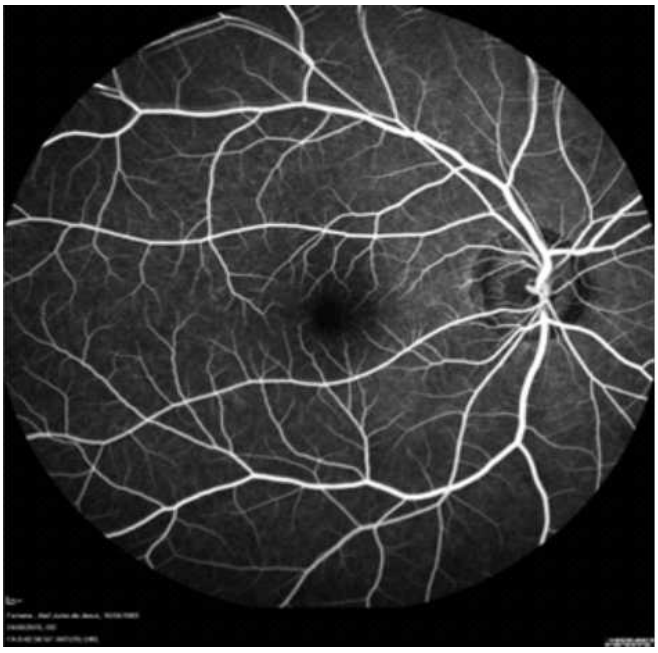

Figure 4: The image of angiofluoreceinography after treatment carried out on 08/24/2015 shows resolution of the condition.

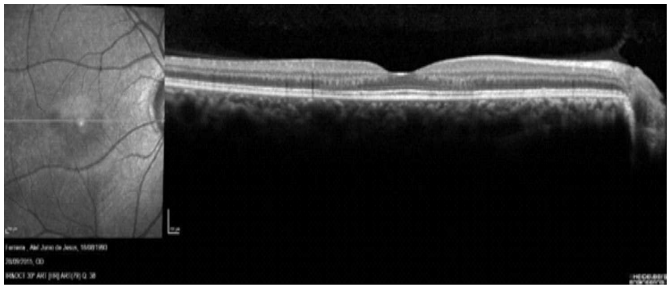

Figure 5: OCT Image on 09/29/2015 showing improvement of serous detachment after the treatment was instituted.

Discussion

Although uncommon, SO is in fact a serious ocular disease with a high potential for blindness, either in the traumatized or exciting eye, or the contralateral or sympathising eye.[7]

The time elapsed between the initial trauma and the onset of symptoms may vary from weeks to years, and in cases where symptoms appear in the first year, 65% of them occur in the first two months.[8]

Fluorescein angiography (FA) and, more recently, green angiography with indocinine (ICGA), together with spectral domain optical coherence tomography (SD-OCT), have been useful tools in the diagnosis and treatment of SO, as well as important adjuvants in establishing the extent and severity of the disease.[9]

FA findings are varied and may show hypofluorescent spots that represent blockage by foci of cell infiltration in the superficial layer of the choroid or hyperfluorescence in late phases, possibly secondary to the slow leakage of dye through retinal pigment epithelium (EPR), as well as optical disc coloring.[10]

In some cases, only ICGA can detect hypofluorescent spots that represent edema blockage due to inflammatory infiltrate of the choroid.[11]

SD-OCT is a new latent imaging modality to enable high-resolution OCT image of external layers of the retina and choroidal (EDI mode).[12]

The most prevalent findings in SD-OCT are a disorganization of the external layers of the retina, an accumulation of intra retinal fluid and sub-RPE, and choroidal thickening. In addition, OCT may be useful in the follow-up of patients under treatment of macular edema caused by uveitis.[13]

In the case previously described, we performed OCT precociously, evidencing edema and serous detachment of the retina.

After 35 days of treatment, we were able to follow the resolution of the condition with a new SD-OCT.

The prognosis is favorable in cases submitted to early medical treatment.[14]

The use of systemic corticosteroids has revolutionized the prognosis, leading to good visual acuity especially in cases where the diagnosis precocious with promptly instituted anti-inflammatory therapy. However, relapse may occur if the sequence is not completed.[14]

Thus, ophthalmologists should be aware of the possibility of sympathetic ophthalmia in the follow-up of patients suffering from ocular trauma, even though it is a rare pathology.[15]

Conclusion

Sympathetic ophthalmia is a fearful complication due to a penetrating trauma to the ocular globe. It represents a challenge for the ophthalmologist in all aspects: in the diagnosis, which should be of exclusion; in the severity of the condition; and in the therapy, which must be precocious and aggressive.

The case presented illustrates the severity of this condition and the importance of treating these patients, requiring a careful follow-up of the patient for the rest of their life, in order to ensure immediate treatment and prevent the appearance of potential sequelae.

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