

# Multifocal choroiditis

## *Coroidite multifocal*

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### ABSTRACT

*Multifocal choroiditis is an uncommon idiopathic inflammatory ophthalmological disease, which usually affects young women. The authors report a case of multifocal choroiditis in which patient underwent subtenonian triamcinolone injection associated with oral corticosteroid and management of immunosuppressive therapy. The clinical, diagnostic and treatment aspects are discussed. The subtenonian triamcinolone injection presented good results on macular edema when associated with oral immunosuppressive therapy, in agreement with the records obtained in the current medical literature.*

**Keywords:** Uveitis; Choroiditis; Retinal pigment epithelium; Optical, coherence tomography

### RESUMO

A coroidite multifocal é uma doença inflamatória idiopática pouco comum na prática oftalmológica, que usualmente acomete mulheres jovens. Os autores visam relatar um caso de coroidite multifocal em seguimento ambulatorial em que o paciente foi submetido a injeção subtenoniana de triancinolona associada a corticoterapia via oral com manejo da terapia imunossupressiva. São discutidos os aspectos clínicos, diagnósticos e tratamento. A injeção de triancinolona subtenoniana apresentou bons resultados quando associada à terapia imunossupressiva via oral sobre o edema macular, em consonância com os registros obtidos na literatura médica atual.

**Descritores:** Uveíte; Coroidite; Epitélio pigmentado da retina; Tomografia de coerência óptica

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**The authors declare no conflict of interests.**

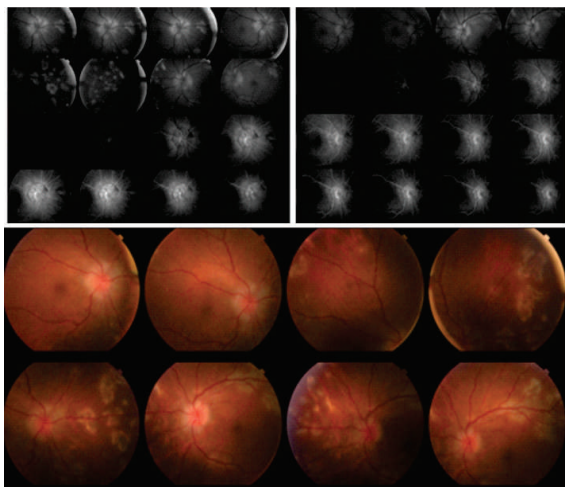
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## INTRODUCTION

**M**ultifocal choroiditis is an uncommon idiopathic inflammatory disease in the ophthalmological practice usually affecting young women. It is characterized by the presence of multiple whitish lesions at the level of the choroid and pigmented epithelium of the retina. It presents a chronic, progressive, usually bilateral character, and leads to low visual acuity related to its complications.<sup>(1-4)</sup> In the present article we report a case of multifocal choroiditis submitted to subtenon injection of triamcinolone associated with oral corticotherapy with immunosuppressive therapy.

## CASE REPORT

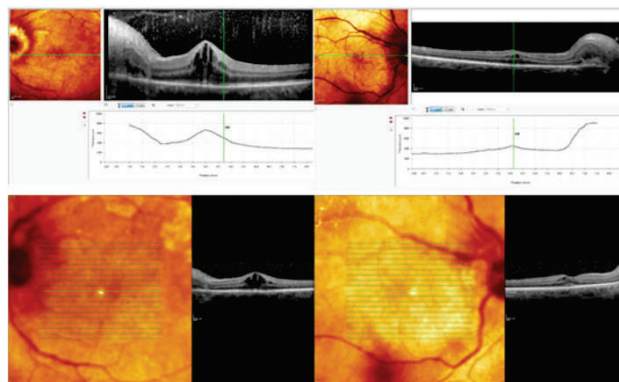
JLC, female patient, 43 years old, reported bilateral eye pain for more than a month, visual blur and eye floaters for about 5 months, as well as associated headache. She denies comorbidities, previous ophthalmologic surgeries, history of trauma or eye infection. At hospitalization: visual acuity of right eye 20/100, left eye 20/70. Biomicroscopy of both eyes showing clear eye, transparent cornea, anterior chamber reaction with 1-2+/4+ cellularity and 1-2+/4+ flare, iris pigments in the anterior capsule of the crystalline. Fundoscopy of both eyes: increased vitreous cellularity (moderate), papilla with discrete edema, macula with cystoid edema, multiple yellowish gray lesions of exudative appearance in the periphery. Pan uveitis made it difficult to assess lesions better. Patient already on treatment of toxoplasmosis on hospitalization, using sulfadiazine, pyrimethamine and folic acid, as well as oral prednisone 1mg/kg/day, prednisolone acetate and cycloplegic eyedrops. Laboratory tests, chest X-ray and ophthalmic imaging were requested. (Figure 1)



**Figure 1:** Angiofluoresceinography and Retinography - Third week after admission

In weekly ambulatory follow-up, there is improvement of pan uveitis with a better evaluation of fundoscopy, which revealed some yellowish gray and other pigmented lesions in the periphery of both eyes. The scheme for toxoplasmosis was interrupted because the lesions were not characteristic of such etiology. Prednisone was maintained in a regression of 10mg/week, and steroid eyedrops were also in regression.

The attempt to decrease oral prednisone was due to worsening of the clinical condition and increased lesions, with a need for corticotherapy. The patient evolved with worsening of visual acuity, reaching 20/150 of right eye and 20/200 of left eye, maintaining fundoscopy with signs of papilledema and cystoid macular edema, as well as lesions at the level of choroid and pigmented epithelium of the retina. (Figure 2)



**Figure 2:** Nerve and Abdominal Optical Coherence Tomography - Three months after admission

She underwent rheumatologic evaluation due to the complaint of polyarthralgia when questioned about the systemic symptoms and clinical investigation in search of diagnosis. Neurological evaluation with CSF puncture without significant alterations; MRI of the skull did not show alterations. Laboratory tests: ANTICCP negative; PCR: 0.39 (0.00-0.50); FAN: non-reactive; Rheumatoid Factor: 0.3 (0-14); HLA-B27: bsent VHS 27; Ig CMV IGM: non-reactive / IGG: reactive; Ig TOXO IGM: non-reactive / IGG: reactive; TOXO PCR negative; Ht: 38.4 (36-47); Hb: 13.0 (12-16); leuco: 8590 (4.000-11.000); platelets: 266,000 (150,000-450,000); ANTIHIV negative; HBSAG negative; ANTIHBC negative; ANTIHCV negative; VDRL negative; P-anca negative and C-anca negative; PPD non-reactive; Angiotensin Converting Enzyme 28.60 (20-70). Chest X-ray without alterations.

With the diagnosis of multifocal choroiditis, which occurs in most cases by exclusion of other etiologies, the therapy chosen was subtenon injection of triamcinolone in both eyes. One month afterwards, the patient presented visual acuity with partial correction of 20/40 in both eyes; IOP 13mmHg in both eyes; biomicroscopy without alterations; fundoscopy of both eyes: papilledema in regression, atrophic macula, periphery lesions of non-exudative aspect 360°, absence of vitreitis. Patient on oral prednisone 60mg/day. We tried to regress it to 10mg/week. Approximately 2 months after injection, fundoscopy revealed signs of retinitis and discrete vitreitis, with need for corticotherapy adequacy, and oral methotrexate 15mg/week with oral prednisone was introduced. Patient being followed with return to the ambulatory planned.

## DISCUSSION

Multifocal choroiditis is an uncommon idiopathic inflammatory disease in the ophthalmological practice usually affecting young women. It is characterized by the presence of multiple whitish lesions at the level of the choroid and pigmented epithelium of the retina. It presents a chronic, progressive, usually

bilateral character. Reaction of anterior chamber and vitreitis can be observed. The patient typically complains of visual haze, increased blind spot and/or photopsia. The patient presented in this clinical case can be compared to the epidemiological data described for multifocal choroiditis. Although the etiology remains unknown, some studies suggest that autoimmune / inflammatory manifestation may underlie the existence of exogenous triggers, and therefore further studies are needed in the area. Long-term follow-up is necessary, and the visual prognosis is usually good.<sup>(1-4)</sup> In the present report, the visual prognosis was favorable at first (visual acuity of 20/40 by the Snellen table), but the visual prognosis is uncertain as a result of recurrence of the inflammatory condition after interrupting medication.

The most common complications are subretinal fibrosis and choroidal neovascularization. Papillitis is less frequently seen. As in the case reported in the present study, other authors have also shown that cystoid macular edema is one of the complications, and it is associated with worsening of the visual acuity, as well as macular atrophy.<sup>(5-7)</sup> Some studies also highlight glaucoma, cataract and optic nerve atrophy as complications with considerable prevalence.<sup>(8)</sup> In other researches on multifocal choroiditis, imaging tests such as Fluorescent Angiography and Optical Coherence Tomography are used to assess the degree of disease activity, as well as the response to therapy, reinforcing the findings described here such as optic nerve atrophy and macula.<sup>(9-11)</sup>

Systemic and/or local corticotherapy are already described as the treatment of choice for the management of inflammatory conditions. Studies show the effective results of intravitreal, subconjunctive or subtenonian injection combined with systemic immunosuppression on macular edema. Intravitreal injection of anti-VEGF has been shown to be an effective option in the treatment of choroidal neovascularization and macula edema. The present case shows a good response to the management of multifocal choroiditis with subtenonian injections associated with oral immunosuppression: regression of ocular inflammation after administration of the medication was observed, as documented with the improvement of visual acuity, as well as regression of papilla edema, vitreitis, and peripheral lesions.<sup>(5,12-14)</sup>

It is important to note that, as described in the literature, due to the idiopathic inflammatory character, multifocal choroiditis is considered an exclusion diagnosis, and it is necessary to investigate other pathologies that may cause a similar condition. The etiological investigation in the present case was briefly described in the report above.

## CONCLUSION

In the case reported, the injection of subtenonian triamcinolone presented good results when associated with oral immunosuppressive therapy on macular edema and choroiditis, in agreement with the records obtained in the current medical literature. Ambulatory follow-up becomes mandatory, and the patient has returns scheduled with management of the treatment based on the clinical condition and ophthalmologic imaging.

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