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Multifocal Choroiditis: A Case Presentation and Importance of Multimodal Imaging!

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Abstract:
Multifocal choroiditis is an uncommon idiopathic inflammatory disease affecting young women. It is a chronic, progressive and bilateral affection. This entity has a good visual prognosis but the risk of complications, in particular neovascularization, is not negligible. We report the case of a 50-year-old patient who complains from visual haze and floaters for several years in whom clinical examination and multimodal imaging data have made the diagnosis. Multimodal imaging data, including OCT A, helps diagnosis, guiding treatment, monitoring, and detecting complications.

Key Words*: Multifocal choroiditis; Choroïdal neovascularisation ; Multimodal ; OCT.*

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I. Introduction:

Multifocal choroiditis is an uncommon idiopathic inflammatory disease affecting young women. It is a chronic, progressive and bilateral affection. This entity has a good visual prognosis but the risk of complications, in particular neovascularization, is not negligible. The advent of multimodal imaging data has made it possible to better characterize the pathology, to follow the evolution and to detect complications. We report the case of a 50-year-old patient who complains from visual haze and floaters for several years in whom clinical examination and multimodal imaging data have made the diagnosis.

II. Patient And Case Report:

A 60 years old female patient with no medical or surgical history complains from floaters and visual haze for several years. Here visual acuity was 09/10 OU. Anterior segments were normal as were the intraocular pressures. Fundal examination revealed bilateral mild vitritis, bilateral round chorioretinal lesions with pigment hypertrophy in the posterior and peripheral fundus. There is also a curvilinear chorioretinal streaks (Figure 1). Both maculae appeared normal. A fluorescein angiography showed early hypofluorescence at mild to late staining without leakage (Figure 2). Macular OCT of the right eye objectified a hyperreflective lesion above the pigment epithelium of the right macula located foveolar with a discontinuity of the RPE. OCT showed heterogeneous increase in underlying choroidal signal transmission (Figure 3). Macular OCT of the left eye showed epimacular membrane with mild foveal macular cystoide oedema (Figure 3). An A-OCT was performed and showed the existence of an image of abnormal neovascular flow. The data from additional examinations looking for an etiology were negative: serology for syphilis (non-treponemal and treponemal), tests for tuberculosis (tuberculin skin test, quantiferon and chest x-rays), tests for sarcoidosis (enzyme of serum angiotensin conversion and chest x-ray or computed tomography). Our patient received an anti-VEGF injection (Bevacizumab) as well as oral corticosteroid therapy with good progress.

III. Discussion:

Idiopathic MFC generally describes a relatively uncommon, chronic, inflammatory chorioretinopathy that predominantly affects young healthy myopic women [1]. It is characterized by the presence of multiple lesions at the level of the choroid and pigmented epithelium of the retina ranging from 50 to 350 μm in size, both the posterior pole and periphery[2]. Other findings include peripapillary atrophy, scarring, and curvilinear chorioretinal streaks (Schlaegel lines) [3]. Reaction of anterior chamber and vitritis can be observed. The patient can complain of visual haze, floaters, photopsia and increased blind spot. Papillitis is less frequently seen [2].

Fluorescent Angiography and Optical Coherence Tomography are used to assess the degree of disease activity, as well as the response to therapy. The most common complications are subretinal fibrosis and choroidal neovascularization. Choroidal neovascularization develops in 6 to 76% of cases depending on the study [4]. The existence of subepithelial lesions on OCT can lead to confusion with a new choroidal vessel. The

contribution of angio OCT will make it possible to distinguish these two lesions but does not distinguish between an active lesion and scarring, hence the importance of angiography and autofluorescence as is the case with our patient [5]. Optical Coherence Tomography is also used to assess optic nerve atrophy and macula [6]. EDI-OCT imaging of the choroid show a small increase in choroidal thickness in active lesions [7].

The response to corticosteroid therapy is generally favorable with the risk of corticosteroid dependence and relapses upon discontinuation of treatment [8]. The visual prognosis is good but remains uncertain given the risk of complications [7]. Systemic corticosteroid therapy in conjunction with immunomodulatory therapy, has shown to reduce the amount of inflammatory infiltration of the subretinal space and outer retina. The use of single agent immunosuppression can be effective [9]. Some authors suggest that anti VEGF therapy is necessary in the acute stage [7].

IV. Conclusion:

Multifocal choroiditis is a rare form of white point syndrome that affects young women. This condition has a favorable prognosis despite the fact that its chronicity can threaten the visual prognosis with complications. Multimodal imaging data, including OCT A, helps diagnosis, guiding treatment, monitoring, and detecting complications. The importance of OCT A is the diagnosis of choroidal neovascularization which can be confused with the inflammatory lesions of multifocal choroiditis.

COMPETING INTEREST: No potential conflict of interest relevant to this article was reported.

AUTHORS' CONTRIBUTIONS: All authors have contributed to redaction, verification and correction of this work.

Legend of figures:

Figure 1: Fundal examination found bilateral round chorioretinal lesions with pigment hypertrophy in the posterior and peripheral fundus. There is also a curvilinear chorioretinal streaks.

Figure 2: Fluorescein angiography showing early hypofluorescence at mild to late staining without leakage: Schlaegel lines.

Figure 3: Macular OCT of the right eye : an hyperreflective lesion above the pigment epithelium of the right macula located foveolar with a discontinuity of the RPE. OCT showed heterogeneous increase in underlying choroidal signal transmission. Macular OCT of the left eye showed epimacular membrane with mild foveal macular cystoide oedema.

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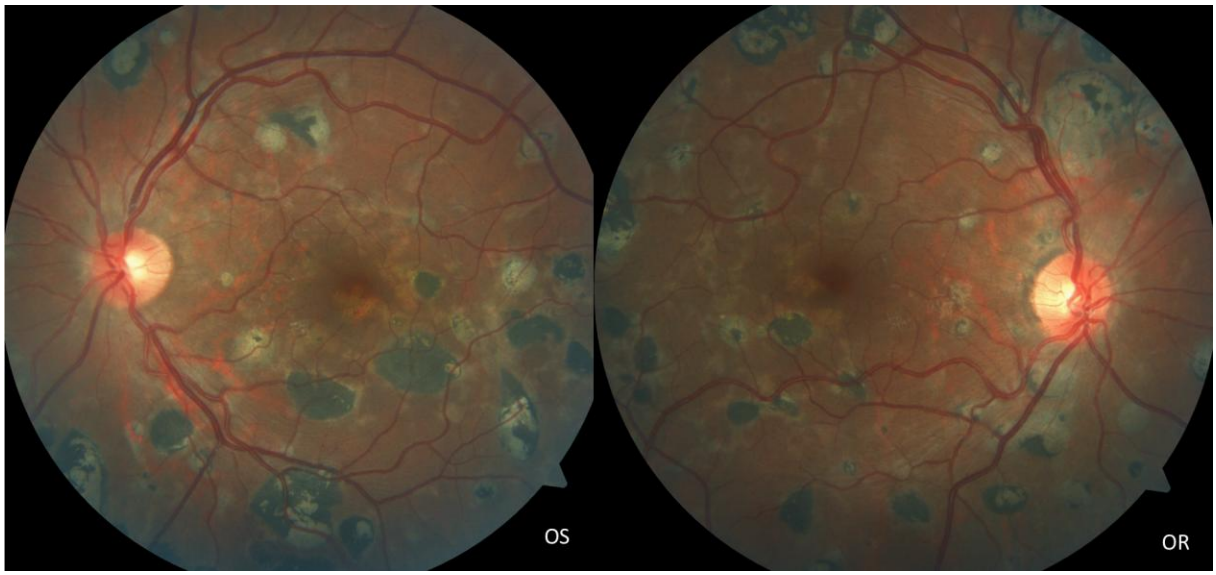

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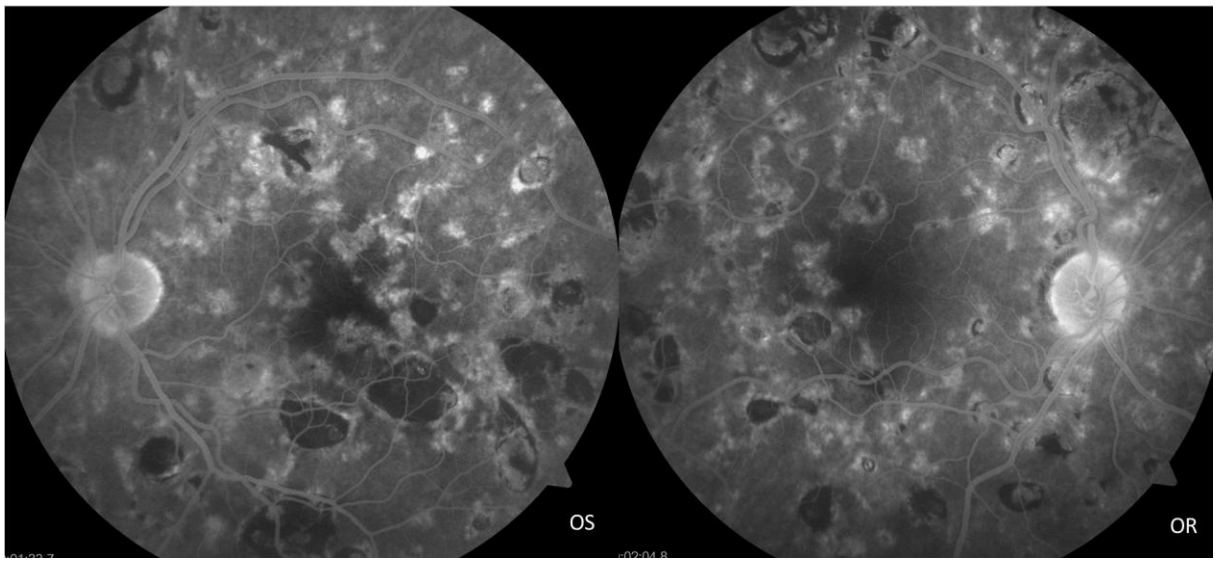

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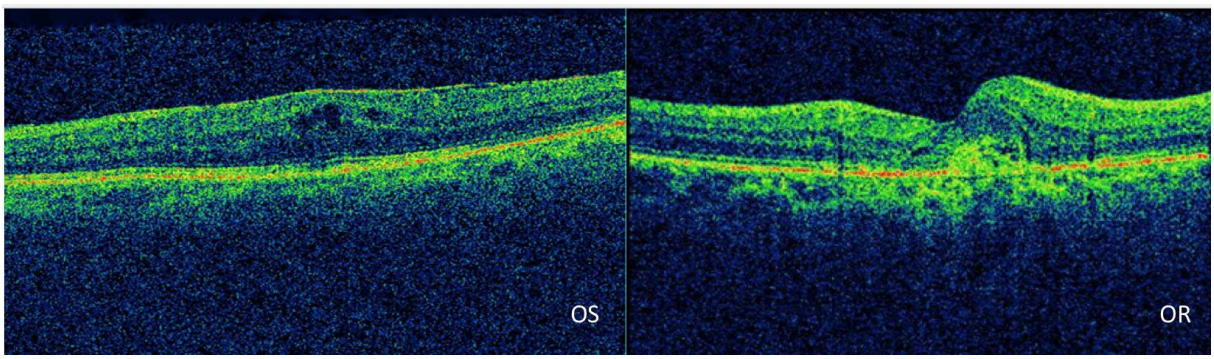

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