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Case Report

Multifocal Choroiditis with Panuveitis

Ghyath Kafa^{*}

Department of Ophthalmology, County Durham and Darlington Foundation Trust, United Kingdom

*Corresponding author: Ghyath Kafa, speciality doctor, ophthalmology, Manchester, United Kingdom, Tel: 00447894525356; E-mail: ghyathkafa@hotmail.com Received date: May 22, 2015: Accepted date: Sep 21, 2015: Published date: Sep 26, 2015

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History

A 57 years old myopic healthy woman came to the urgent care in Darlington Memorial Hospital, UK for follow up after anterior uveitis in her left eye. She was on topical steroids and cycloplegic for her left eye. The patient has been complaining of floaters and recurrent onset of decreased vision in both eyes since 1999. She has also a long history of recurrent anterior uveitis and vitritis in both eyes. She had a history of bilateral cystoid macular oedema in both eyes starting about 6 months ago which was treated successfully with topical NASIDs and topical steroids (Figure 1).



Figure 1: Colour central fundus photograph with OCT scans of right **(a)** and left **(b)** eyes, showing changes consistent with cystoid macular oedema 6 months ago.

Examination

On examination visual acuity in the right eye was 6/6 and in the left eye was 6/7.5. The intraocular pressure was 16 mmHg in the right eye and 15 in the left eye. The ocular motilities were normal.

Slit lamp examination for the right eye showed a clear cornea, deep and quiet anterior chamber. The lens showed some pigment deposits on anterior lens surface and mild cataract. The vitreous had debris with no active vitritis, and the fundus showed peripappillary atrophy. However, slit lamp examination of the left eye showed mild anterior chamber reaction with a pharmacologically dilated pupil and some pigment deposits on anterior lens surface. The vitreous had debris with no active vitritis. The fundus showed peripappillary atrophy, round pigmented atrophic chorioretinal scars, and white active choroidal lesions at the posterior pole and mid peripheral fundus (Figure 2).



Figure 2: Colour fundus photograph of left eye showing peripapillary atrophy, and multiple lesions at the posterior pole of both active choroiditis and atrophic lesions (a), and active choroiditis lesion at midperiphery (b).

Ancillary tests

FBC, ESR, CRP, ACE, chest X-rays were normal, FTA-ABS was negative. Tuberculin skin test and interferon gamma were negative.

Treatment

The patient was not started on oral steroid due to good visual acuity in the affected eye and was just prescribed topical steroids and cyclplegics.

Follow up after two months showed complete settling of inflammation disappeared with vision back to normal. The new OCT showed a normal dry macula with no intraretinal fluid in either eye. (Figure 3).



Figure 3: Colour photograph of central fundus with an OCT scan of the right eye (a) and the left eye (b) , showing dry maculae with no signs of cystoid macular oedema two months after treatment.

Differential diagnosis

Punctuate inner choroidopathy

Multifocal choroiditis with pan uveitis

Presumed ocular histoplasmosis

Infectious diseases like TB

Inflammatory diseases like sarcoidosis

Others like intraocular lymphoma

Diagnosis and Discussion

The patient has multifocal choroiditis with pan uveitis. The diagnosis is one of exclusion as many other conditions, such as, punctate inner choroidopathy, presumed ocular histoplasmosis, sarcoidosis, syphilis, and tuberculosis, may produce lesions similar in appearance to those of MCP. Sometimes the diagnosis is considered a dilemma and a new study has suggested invasive procedures such as chorioretinal biopsy to confirm the diagnosis [1].

We excluded punctuate inner choroidopathy for two reasons. Firstly, PIC usually comes in younger ages and with lower frequencies of structural complications from intraocular inflammation and a lower frequency of visual impairment at presentation [2]. Our patient had the first onset when she was 42 years old. Secondly, Punctate inner choroidopathy is characterized by smaller yellowish spots (50-100 microns) located at the level of the retinal pigment epithelium and inner choroid, most often located in the posterior pole as firstly described in 1984 [3]. Our patient has lesions at the posterior pole and peripeherally and the lesions are around 200 microns. The case also mimcs POHS, however, in our patient , there is no history of living in areas endemic for POHS, and the latter rarely comes with anterior uveitis [4,5]. TB and sarcoidosis should be included in the differential diagnosis [6]. We excluded them as the patient is healthy and has longstanding history of this problem without any other associated relevant systemic problems. Furthermore, blood, immunology, histochemistry tests and chest x-rays were normal. We ruled out intraocular lymphoma for three reasons. Firstly, because the indolent course of the uveitis in our patient. Secondly, intraocular lymphoma

comes in older ages. Finally, lack of CMO is an important diagnostic clue, since in true uveitis significant vitritis is almost always accompanied by CMO.

Treatment options are topical, periocular injection, and/ or systemic steroids . Also, many studies say that Immunomodulatory therapy controls inflammation and preserves vision in patients with multifocal choroiditis and panuveitis [7]. However, as our patient has a good history of gaining complete recovering after topical steroids and NASID for OCT, we prefer to stay using topical treatment for this condition. Finally, it is important to mention that there is a current study of using an intravitreal injection of LFG316 and to assess the safety, tolerability and effect of this drug in patients with active Multifocal Choroiditis and Panuveitis. LFG316 5 mg administered via IVT (intravitreally) on Days 1 29 and 57 (LFG316 is a complement inhibitor that targets the complement system at C5) [8].

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