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SHORT COMMUNICATION

Reactivation of ocular toxoplasmosis in fellow unaffected eye

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PURPOSE. *To report a case of reactivation of ocular toxoplasmosis in fellow unaffected eye.*
METHODS. *Case report.*
RESULTS. *A 15 year old girl, known to have right ocular toxoplasmosis previously, has presented with one week history of sudden left visual deterioration and pan uveitis. Her condition was improved on intensive steroid treatment.*
CONCLUSIONS. *Reactivation of such lesion in fellow unaffected eye is quite rare. Various choices of treatment are available and there are also different techniques to treat. A review of treatment based on this pathology is briefly discussed. (Eur J Ophthalmol 2004; 14: 338-40)*

KEY WORDS. *Reactivation, Toxoplasmosis, Treatment*

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INTRODUCTION

Toxoplasmosis gondii is a well-known parasite causing infectious chorioretinitis in healthy individuals1, it causes more complications in pregnancy and immunocompromised patients. The cats or its close feline relative appear to be the definitive host, this parasite exists in three forms, trophozoite, gametocytes and oocytes.

Case report

A 15-year old girl presented with twelve months history of central scotoma in her right eye. On examination, her right visual acuity was 6/60, left was 6/4. There was no evidence of anterior chamber or vitreous inflammation. Fundal examination showed an old macular scar (Figure 1), the left eye was normal. A baseline photograph was taken, her toxoplasmosis IgG antibody test was positive. After three months of observation, she was discharged.

2 years later she presented again with a one week history of black floater in her left eye. On examination, her visual acuity was 6/4 in the left and 6/60 in the right, the left eye had a pan uveitis. There was a new large creamy yellow area of chorioretinitis with a dark central pigmentation just above the left superotemporal vascular arcade, above the macula (Figure 2).

Over 1 week her left visual acuity deteriorated from 6/4 to 6/6, her toxoplasma IgG was positive. The an-

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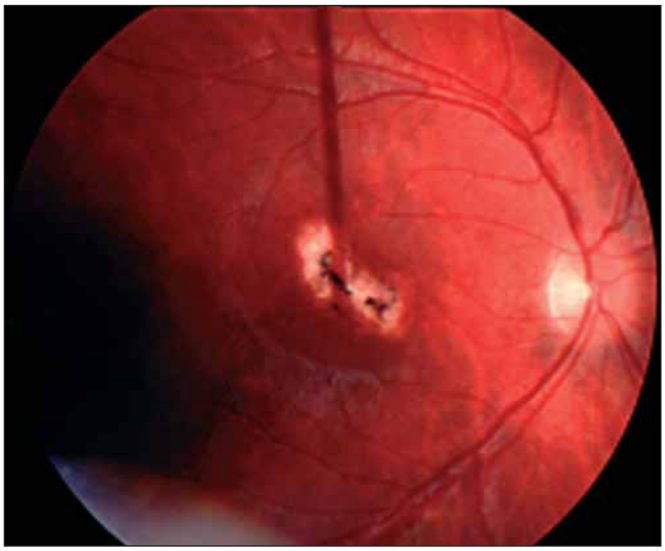

Fig. 1 - *Old macular scar on the right eye.*

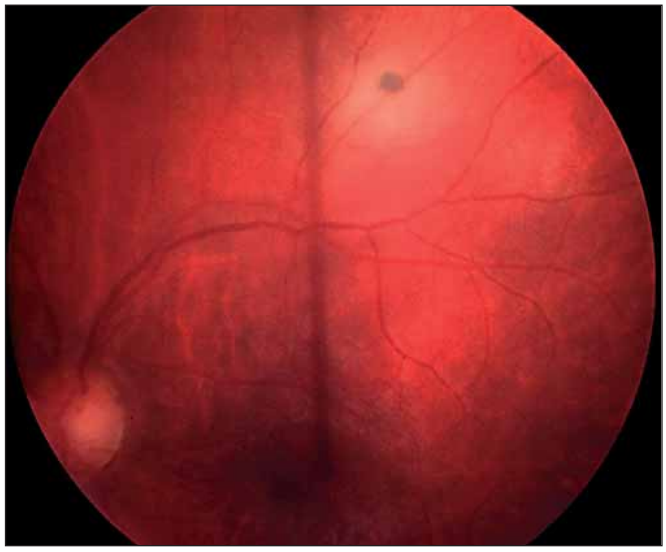

Fig. 2 - *Area of chorioretinitis near the vascular arcade.*

titoxoplasma therapy was started in view of the proximity of the toxoplasma lesion to the vascular arcade, in her only good eye. She was treated with Pyrimethamine, Sulphadiazine, Folinic acid supplement, Prednisolone, guttae Atropine 1% and guttae Maxidex. After three weeks, the lesion in the left eye was well demarcated and the pan uveitis had subsided. The oral and topical steroids were tailed off.

DISCUSSION

The ocular manifestation of toxoplasmosis was first described in the early 50s. In the retina, the lesion is oval with creamy yellow appearance in the active phrase. It slowly affects all layers of retina, retinal pigment epithelium and choroid showing a hyperpigmentation, there is 6% chance of retinal detachment2. Cellular infiltration within the vitreous cavity results in vitreous opacities. Patients may present with focal scotoma, reduced visual acuity or may be found to have toxoplasma lesions as incidental findings. In our case, our patient did not possess higher risk of acquiring such problem, reactivation of ocular toxoplasmosis in fellow unaffected eye is quite a rare incidence.

The differential diagnosis of toxoplasma chorioretinitis includes CMV retinitis, fungal infections, syphilis, Tuberculosis, Sarcoidosis and even congenital hypertrophy of retinal pigment epithelium3. In the immunocompetent host, the condition can be self-limiting, but in the immunocompromised patient the treatment may have to be prolonged.

The diagnosis of ocular toxoplasmosis is based largely on the clinical appearance. There are several laboratory tests to corroborate the clinical impression such as the Sabin-Feldman test, complement fixation test, enzyme-linked immunosorbent assay and others, but they have a degree of false positive results4. Indocyanine green angiography may be used to demonstrate the extent of the disease because it localises the area of chorioretinitis.

Treatment for chorioretinitis in immunocompetent patients is indicated if the visual acuity is worse than 6/60, lesions are involving the peripapillary, perifoveal, or maculopapillary bundles, or lesions associated with severe vitreous inflammation. Otherwise, close observation is recommended.

There are many combinations of treatment, systemic corticosteriods are used in 95% of the initial treatment regimes combined with other treatments. The two main combined regimes are Pyrimethamine, Sulphadiazine and corticosteroids, or Pyrimethamine, Clindamycin and corticosteroids. All of these treatments require folinic acid supplements to be given. A course of treatment lasts three to four weeks. Adjunctive therapies such as photocoagulation, cryotherapy or vitrectomy may be considered ocassionally (5, 6).

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REFERENCES

1. Henderly DE, Genstler AJ, Smith RE, Rao NA. Changing patterns of uveitis. Am J Ophthalmol 1987; 103: 131-6.
2. Bosch-Driessen LH, Karimi S, Stilma JS, Rothova A. Retinal detachment in ocular toxoplasmosis. Ophthalmology 2000; 107; 36-40.
3. Nussenblatt RB, Whitcup S, Palestine AG. Uveitis: Fundamental and Clinical Practice, 2nd Edition. St. Louis: Mosby USA 1995; 291-308.
4. Wilson M, McAuley JB. Laboratory diagnosis of toxoplasmosis. Clin Lab Med 1991; 11: 923-39.
5. Engstrom RE, Holland GN, Nussenblatt RB, Jabs DA. Current practices in the management of ocular toxoplasmosis. Am J Ophthalmol 1991; 111: 601-10
6. British Medical Association. British National Formulary, 39th Edition. BMJ Books, 2000; 307-8.