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CASE REPORT

Intraocular lymphoma following a primary testicular lymphoma in remission for 10 years

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Case report

An 83-year-old Caucasian patient was referred with bilateral vitritis treated with topical corticosteroids for 6 months. The patient had had a history of right testicular B-cell lymphoma 10 years ago, which was treated with an orchidectomy followed by six rounds of CHOP-type chemotherapy.

Ophthalmologic examination revealed a best corrected visual acuity of 50/100 in the right eye (RE) and 30/100 in the left eye (LE). Anterior segment examination was normal. Intra-ocular pressure was 15 mmHg in both eyes.

Fundus examination disclosed mild vitritis and multiple pin-like creamy lesions in the deep retina of both eyes. A fluorescein angiography disclosed multiple pinpointed hyperfluorescent lesions (Fig. 1).

An anterior chamber aspiration revealed an interleukin-10 (IL-10) of 314 pg/ml (normal <8 pg/ml) and 150 pg/ml in the aqueous of the LE and RE, respectively.

A diagnostic vitrectomy of the LE confirmed the presence of atypical lymphoid B-cells with an *IgH* gene rearrangement detected using microdissection and PCR. An IL-10 level of 624 pg/ml was measured with ELISA in the vitreous. An intraocular B-cell lymphoma was diagnosed.

The patient was treated with a bilateral local radiotherapy. In the follow-up at 6 months after treatment his best corrected visual acuity was 10/10 in both eyes. A cicatrisation of the pin-like lesions was observed in the fundus examination.

He did not develop any local or systemic adverse effects.

Discussion

Secondary or metastatic intraocular lymphoma is usually located in the uvea without involvement of the neurosensory retina, although a few cases of predominantly retinal disease have been reported [1]. A recurrent, chronic, resistant bilateral uveitis in elderly patients is the typical presentation of primary

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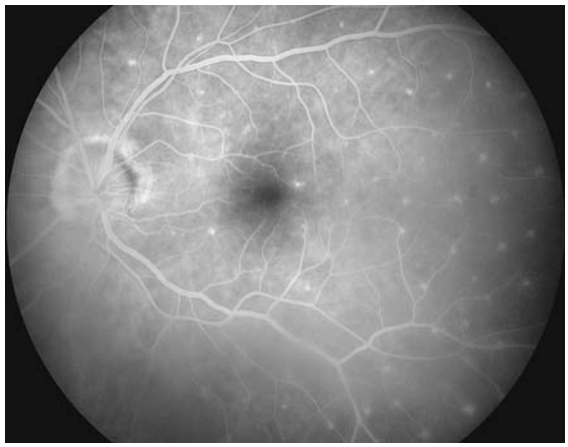

Fig. 1 A fluorescein angiography of the LE discloses multiple pinpointed hyperfluorescent lesions

CNS/intraocular lymphoma. Rarely, a pseudohypopyon may be present [2]. Other unusual manifestations include optic disk swelling [3], serous macular detachments [4] and lymphoma—associated retinopathy [5].

The most common lymphoma subtype involving the eye is B cell lymphoma [1]. Morphologically, it may be difficult to differentiate whether an ocular diffuse large B-cell lymphoma (DLBCL) is a primary or secondary tumor. Coupland et al. [6] have reported that the expression of immunoglobulin transcription factors is different in systemic DLBCL and primary retinal and CNS lymphoma. Clonal analysis studies [7, 8] with sequencing of the polymerase chain reaction products can indicate if the clones have originated from the same tumor or not.

Up to now there have been seven documented cases of primary testicular lymphoma metastases to the eye [9]. Both the testis and eye, as well as the brain, are immunoprivileged organs, with strong blood-tissue barriers and altered immune response [10]. The presence of a bilateral vitritis in a patient with a history of a testicular lymphoma should evocate a secondary intraocular involvement. A diagnostic vitrectomy using PCR is indicated.

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