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SECONDARY INTRAOCULAR LYMPHOMA: CASE REPORT

Ophthalmology

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ABSTRACT

We report a case of secondary intraocular lymphoma in a 60 year old female who is a known case of Non-Hodgkin lymphoma who came to us with complaint of gradual diminution of vision in both eyes for one month. On fundus examination there were hypopigmented lesions with infiltrates and membranes. B scan showed vitreous opacities suggestive of vitritis.

KEYWORDS

Intraocular lymphoma, Central Nervous System, Vitritis, Vision.

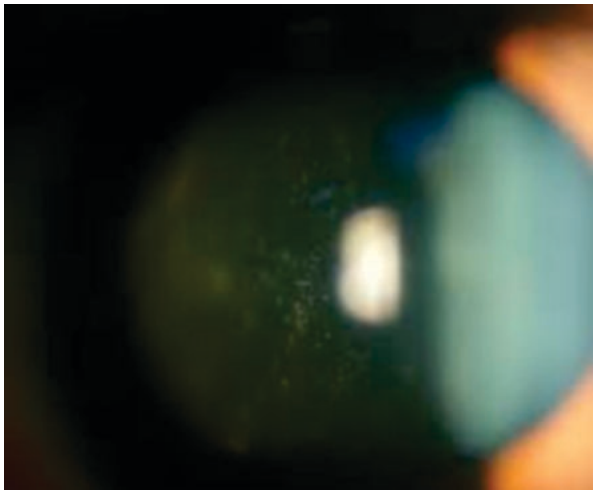
INTRODUCTION

Vitreoretinal Lymphoma currently known as primary intraocular lymphoma is the most common intraocular lympho proliferative disease[1]. It is considered a variant of primary central nervous system lymphomas. Rarely, a vitreoretinal lymphoma can be classified as secondary when it arises due to metastasis from a systemic lymphoma[2,3]. Vitreoretinal lymphomas represent <1% of all intraocular tumours[4], 1-2 % of all extra nodal Non-Hodgkin's lymphomas[5]. Women are more commonly affected than men[4] and patients generally present in 4th to 6th decade. 80-90% patients will have bilateral disease, although initial presentation may be unilateral or asymmetric[5].

Case Presentation

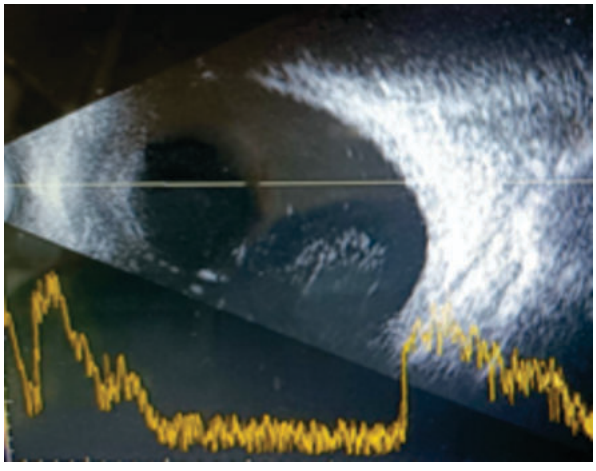
A 60 year old female who is a known case of Non-Hodgkin Lymphoma for which she has received 6 cycles of chemotherapy, presented to outpatient department of our hospital with complaints of diminution of vision of both eyes , left more than right, which was gradual in onset and progressive over 2 month period. There was no history of diabetes mellitus, hypertension or any other comorbidity. There was no history of ocular trauma.

On examination Best corrected visual acuity was 6/36 in the right eye and 6/60 in the left eye, bilateral pupillary reactions were normal. There was right patchy iris atrophy, rest anterior segment examination was normal and IOP was within normal limits in both eyes. On slit lamp,vitritis was seen. On Fundus examination, media was hazy, revealed hypopigmented lesions with infiltrates and membranes in both eyes.

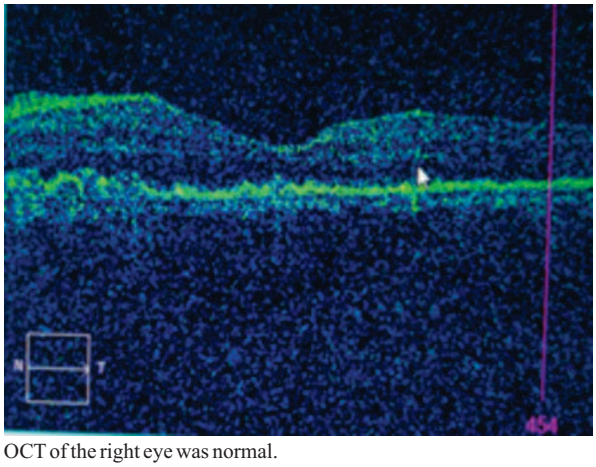


Investigations

1. Vitreous tap was taken and microscopic examination showed dispersed sheets of lymphoid cells and occasional neutrophills in a proteinaceous background.
2. KOH test was negative.
3. B-scan showed hyper reflective vitreous opacities in both eyes suggestive of vitritis.

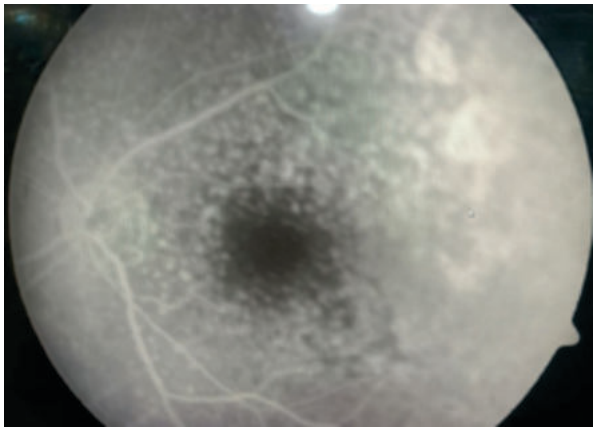


4. OCT of the left eye showed hyperreflective lesions in the retinal pigment epithelial layer corresponding to sub-retinal pigment epithelium lymphoma deposits



OCT of the right eye was normal.

5. Fundus fluorescein angiography(FFA) showed hyperflourescent round spots which did not increase in area and intensity. FFA of the right eye was grossly normal.



6. PET-CT report showed normal FDG distribution in the head. Non metabolically active cervical, bilateral axillary and mediastinal lymph nodes.

DISCUSSION

Secondary intraocular lymphoma arises from known source of systemic Lymphoma and metastasizes to the eye hematogenously. It disseminates predominantly to the uvea which has rich blood supply or to the vitreous or the retina less commonly[6]. It is typically diffuse large B cell lymphoma type. The major subtype of Ophthalmic Lymphoma is extranodal marginal zone lymphoma of mucosa associated lymphoma tissue (MALT[7]). The lymphoma cells in the ocular central nervous system form of the disease appear to arise primarily in the vitreous and in the sub RPE space and only secondarily extend to the retina and choroid. Patients show a wide variety of pictures that may simulate many ocular disorders. They are usually in the sixth to seventh decade of life[8,9].

Young adults and children are occasionally affected[10].The ocular CNS form of large cell lymphoma most frequently masquerades as posterior uveitis in patients complaining of floaters caused by the vitreous infiltration with lymphomatous and inflammatory cells.

Most of the patients develop multiple fundus lesions, which initially may be relatively flat and appear similar to multifocal choroiditis or multiple evanescent white dot syndrome, but typically enlarge to form solitary,sharply defined,blister like yellowish sub-RPE tumours that are usually sufficiently characteristic to allow an accurate diagnosis[8,9,11]. The fine speckling of pigment on the surface of the amelanoticsubretinal mounds is the biomicoscopic clue to the sub-RPE locations of the tumours,which may be confluent and massive in size. Other descriptions include white lesion tumours that may simulate acute retinitis[12], branch artery occlusion by infiltration of the major retinal artery[13], haemorrhagic infarction of the retina simulating that seen in acute retinal necrosis[14], lymphomatous infiltration of the retrobulbar portion of the optic nerve simulating retrobulbar neuritis or infiltration of the optic nerve head simulating papilitis[15-18],iridocyclitis and secondary glaucoma[9].

Our patient presented with hypopigmented lesions in the fundus of both eyes.OCT depicted hyper-reflective lesions in the retinal pigment epithelial layer corresponding to subretinal and sub-retinal pigment epithelium deposits. Moreover exfoliative cytology report of the vitreous sample showed dispersed sheets of lymphoid cells and occasional neutrophils in a proteinaceous background. She is currently on chemotherapy for systemic Non-Hodgkin's lymphoma.

Conflict of Interest: Nil
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