World Journal of Case Reports and Clinical Images

ISSN: 2835-1568; CODEN: USA

DOI: http://dx.doi.org/10.51521/WJCRCI.2026.e52.438

CASE REPORT

Primary Orbital B-Cell Lymphoma Masquerading as Chronic Recurrent Red Eye: A Case Report

Shweta Walia*, Nihil Singh

Department of Ophthalmology, MGM Medical College & M.Y. Hospital, Indore, Madhya Pradesh, India

Received Date: 28-October-2026
Revised Date: 16-November-2026
Accepted Date: 20-November-2026
Published Date: 23-November-2026

Corresponding Author:

Shweta Walia, Department of Ophthalmology, MGM Medical College & M.Y. Hospital, Indore, Madhya Pradesh, India, Email: drshweta_2007@yahoo.com

Citation:

Shweta Walia, Nihil Singh, (2026) Primary Orbital B-Cell Lymphoma Masquerading as Chronic Recurrent Red Eye: A Case Report. World J Case Rep Clin Imag. 2026 November; 5(2),1-4.

Copyrights

© Shweta Walia, 2026, This article is licensed under the Creative Commons Attribution-Non Commercial-4.0-International-License-(CCBY-NC) (https://worldjournalofcasereports.org/blogpage/copyright-policy). Usage and distribution for commercial purposes require written permission.

Abstract:

Background: Primary orbital lymphoma is an uncommon orbital malignancy that frequently mimics idiopathic orbital inflammation, conjunctivitis and other benign conditions. Optic disc infiltration is a rare fundus manifestation and, when present, is a strong pointer to an infiltrative neoplastic process.

Case presentation: A 71-year-old man presented with progressive left periorbital swelling and lacrimation. For a year he had had recurrent red eye, treated symptomatically elsewhere. On presentation, he had left sided total ophthalmoplegia, proptosis of 24 mm, a relative afferent pupillary defect and vision of 6/18, and optic disc infiltration. MRI showed a well-circumscribed intraconal and extraconal mass reaching the orbital apex and sheathing the inferior and lateral rectus muscles. Incisional biopsy with immunohistochemistry showed a low-grade B-cell non-Hodgkin lymphoma favouring extranodal marginal zone lymphoma, and PET found no disease elsewhere. He received 45 Gy of external beam radiotherapy with a short course of oral prednisolone. The mass resolved, eye movements improved and vision reached 6/9 at one month, with no recurrence at six months.

Conclusion: Recurrent red eye can be the first sign of orbital lymphoma. Optic disc infiltration, a muscle-encasing orbital mass and total ophthalmoplegia should make us question a diagnosis of idiopathic orbital inflammation and prompt an early biopsy to rule out orbital malignancy.

Keywords: Orbital lymphoma; Optic disc infiltration; Total ophthalmoplegia; Marginal zone lymphoma; Orbital apex; Masquerade syndrome

World Journal of Case Reports and Clinical Images

ISSN: 2835-1568; CODEN: USA

DOI: http://dx.doi.org/10.51521/WJCRCI.2026.e52.438

1. Introduction:

Lymphoproliferative disease constitute a large subset of primary orbital malignancies in elderly adults, yet it rarely announces itself. Patients present with proptosis, periorbital swelling, ptosis, diplopia or a palpable mass, and the picture is easily mistaken for idiopathic orbital inflammation, thyroid eye disease or chronic conjunctivitis [1-4]. Diagnosis is often late, and many patients are treated empirically, sometimes with corticosteroids, before tissue biopsy.

Involvement of the optic nerve head is much less common than soft-tissue disease and has been reported to mimic disc edema [2,3]. We report case of an elderly male who had history of recurrent red eye leading to total ophthalmoplegia, visual loss and optic disc infiltration, and finally diagnosed with orbital B-cell lymphoma.

2. Case Report:

Case Presentation: A 71-year-old man presented with progressive swelling of the left periorbital region and watering of the eye. Over the previous year he had had recurrent episodes of redness in the left eye, treated symptomatically elsewhere with no diagnosis and no imaging. He came to us when his ocular movements were restricted and his visual acuity started to diminish.

Examination: Visual acuity was 6/18 in the left eye and 6/6 in the right, and both eyes were pseudophakic. The left eye showed periorbital swelling, proptosis of 24 mm, a relative afferent pupillary defect and total ophthalmoplegia (Figure 1). Dilated fundus examination revealed infiltration of the left optic disc (Figure 2), which raised strong suspicion of an infiltrative neoplastic process.

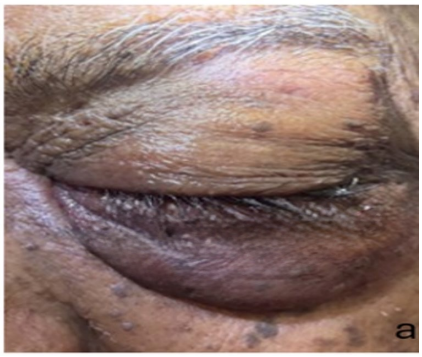


Figure 1. Left periorbital swelling, proptosis and total ophthalmoplegia at presentation.

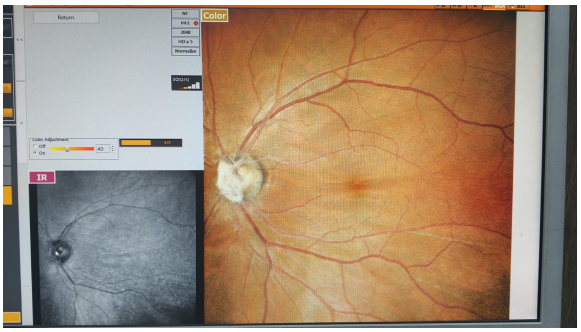


Figure 2. Fundus photograph of the left eye showing optic disc infiltration.

Imaging: MRI of the orbits showed a well-circumscribed mass lying in both the intraconal and extraconal compartments and extending to the orbital apex. It sheathed the inferior and lateral rectus muscles. The lesion measured about 4.5 × 3.2 × 2.3 cm, was hypointense on T1 and hyperintense on T2-STIR, showed mild restriction of diffusion and enhanced heterogeneously after contrast, features frequently associated with orbital lymphoma (Figure 3).

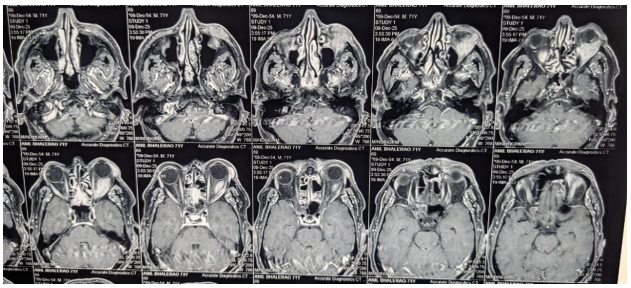


Figure 3. MRI of the orbits showing a well-circumscribed intraconal and extraconal mass extending to the orbital apex and sheathing the inferior and lateral rectus muscles.

Diagnosis: An incisional biopsy of the orbital mass was performed. Routine histology showed sheets of closely packed, monomorphic lymphoid cells with hyperchromatic nuclei and scanty cytoplasm, with adjoining congested vessels, extensive haemorrhage and fibrofatty tissue (Figure 4).

World Journal of Case Reports and Clinical Images

ISSN: 2835-1568; CODEN: USA

DOI: http://dx.doi.org/10.51521/WJCRCI.2026.e52.438

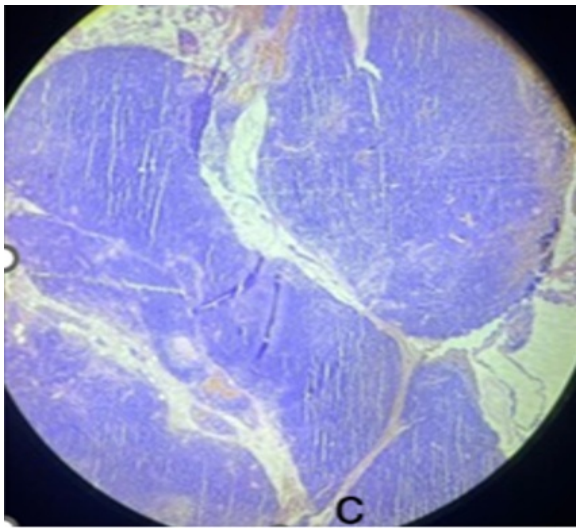


Figure 4. Histopathology of the incisional biopsy showing sheets of monomorphic lymphoid cells.

This suggested a malignant lymphoproliferative disorder, and immunohistochemistry was advised. The neoplastic cells were positive for CD20, PAX5, BCL2 and CD43, with a Ki-67 index of 30%, and negative for CK, CD3, CD5, BCL6, C-MYC, MUM1, CD10, CD38, CD30, Cyclin-D1, SOX11, CD23 and CD21. No granulomas, Hodgkin Reed-Sternberg cells or tangible body macrophages were seen. The final diagnosis was low-grade B-cell non-Hodgkin lymphoma favouring extranodal marginal zone lymphoma. A whole-body PET scan before radiotherapy, done to exclude primary or secondary lesions elsewhere, was normal, which supported primary orbital disease (Ann Arbor stage IE).

Treatment and Outcome: Patient received external beam radiotherapy at 1.8 Gy per fraction, five fractions a week, to a total of 45 Gy. Oral prednisolone (Wysolone) 40 mg once daily was started and tapered over 7 days. The orbital mass resolved, ocular movements improved (Figure 5) and left visual acuity rose from 6/18 to 6/9 at one month. At six months there was no relapse or recurrence.



Figure 5. Resolution of orbital mass and improved ocular movements after treatment

3. Discussion:

Several features of this case are unusual and worth noting. Recurrent redness preceded the full orbital picture by about a year and was managed symptomatically. In an elderly patient, chronic or recurrent unilateral redness that keeps returning despite treatment should lead us to look for an orbital or ocular surface neoplasm instead of repeating the same therapy [4]. Direct involvement of the optic nerve head is distinctly rare in orbital lymphoma. Optic disc infiltration must be differentiated from disc edema [2]. Lymphoma classically moulds itself around the globe and displaces it, so complete loss of ductions is unusual. In our case is best explained by muscle encasement together with extension to the apex. Encasement of the inferior and lateral rectus muscles, with intraconal and extraconal spread to the apex, can be mistaken for idiopathic orbital inflammation or myositis. Inflammatory disease usually responds to steroids, whereas lymphoma may respond only for short term. The cells were CD20, PAX5, BCL2 and CD43 positive and negative for CD3, CD5, CD10, BCL6, CD23, CD21, Cyclin-D1 and SOX11. This argues against the main small B-cell mimics: mantle cell lymphoma (CD5, Cyclin-D1 and SOX11 negative), chronic lymphocytic leukaemia or small lymphocytic lymphoma (CD5 and CD23 negative) and follicular lymphoma (CD10 and BCL6 negative). A Ki-67 index of 30% is fairly high for a classical low-grade marginal zone lymphoma, and fits the aggressive local behaviour as in our case. Patient received 45 Gy, which is higher than the 24 to 30 Gy commonly used for low-grade orbital lymphoma. He responded well, with resolution of the mass, recovery of movement and improved vision, and had no recurrence at six months.

World Journal of Case Reports and Clinical Images

ISSN: 2835-1568; CODEN: USA

DOI: http://dx.doi.org/10.51521/WJCRCI.2026.e52.438

Learning Points: Any elderly patient with chronic unilateral inflammatory eye signs and progressive orbital disease needs early imaging and tissue diagnosis. Fundus examination should be part of every orbital mass work-up, because disc infiltration is a decisive sign of an infiltrative process.

4. Conclusion:

Primary orbital lymphoma may begin as a long-standing, recurrent red eye and later present with total ophthalmoplegia, visual decline and optic disc infiltration. When progressive periorbital swelling, ophthalmoplegia and visual loss occur together, optic disc involvement should immediately raise suspicion of neoplastic infiltration. Early clinical suspicion and prompt incisional biopsy are essential for a definitive diagnosis and a good outcome

5. Declarations:

Informed Consent Statement: Written informed consent for publication of this case and accompanying images was obtained from the patient. [Confirm]

Conflicts of Interest: None declared.

Funding: None.

6. References:

1. A case of primary orbital lymphoma manifested as increased intraocular pressure. Research Square. https://doi.org/10.21203/rs.3.rs-2912086/v1
2. Takkar A, Naheed D, Dogra M, Goyal MK, Singh R, Gupta N, Gupta K, Mittal BR, Lal V. Infiltrative Optic Neuropathies: Opening Doors to Sinister Pathologies. Neuroophthalmology. 2017 May 8;41(5):279-283. doi: 10.1080/01658107.2017.1308519. PMID: 29339963; PMCID: PMC5762170.
3. Beware the Retrobulbar Optic Neuritis Diagnosis. https://doi.org/10.1159/000524685 PMID: 35950025
4. Orbital Diffuse Large B-Cell Lymphoma: A Diagnostic Masquerade. https://doi.org/10.1159/000548958 PMID: 41321554

Submit your manuscript to the
World Journal of Case Reports and Clinical Images
(ISSN: 2835-1568; CODEN: USA)
and benefit from:

- Convenient online submission
- Rigorous peer review
- Immediate publication on acceptance
- Open access: articles freely available online
- High visibility within the field
- Retaining the copyright to your article

Submit your manuscript at
https://worldjournalofcasereports.org/
&
wjcasereports@gmail.com;
submission@worldjournalofcasereports.org