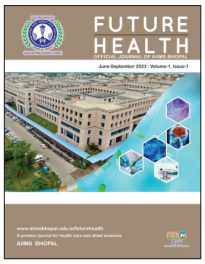
ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

https://futurehealthjournal.com

Future Health



Letter to Editor

Rare case of isolated optic neuritis due to systemic lupus erythematosus (SLE)

Priyanka V Kashyap[1], Mayur K Bhat[2]

[1]Associate Professor, [2]Senior Resident, Department of Neurology, All India Institute of Medial Sciences Bhopal, Bhopal, Madhya Pradesh, India

***Corresponding author:**
Dr. Priyanka V Kashyap,
Associate Professor,
Department of Neurology,
All India Institute of Medial
Sciences Bhopal, Bhopal,
Madhya Pradesh, India.

priyanka.tem@aiimsbhopal.edu.in

Received: 25 July 2024

Accepted: 12 August 2024

Epub Ahead of Print:
26 September 2024

Published: 16 October 2024

DOI: 10.25259/FH_50_2024

Quick Response Code:

Dear Editor,

We want to share a unique clinical presentation observed in our practice that highlights the importance of a detailed evaluation of the wide spectrum of causes leading to optic neuritis. In this case, SLE presented as an isolated optic neuritis (ON).

ON is characterized by inflammation of the optic nerve, causing varying degrees of vision loss. The mechanisms underlying optic neuritis are diverse and can include either demyelinating or axonal damage due to infections, immune-related conditions, toxins, or paraneoplastic disorders[1]. Neuro-ophthalmic manifestations of SLE are rare, with a prevalence of 3.6%[2], and only 1% of patients have optic nerve or optic chasmal involvement[3,4]. Optic neuritis described in lupus patients can present as acute or progressive, painless or painful vision loss, depending on the location of the pathology. The etiology of optic nerve involvement varies from demyelination to vaso-occlusive disease and axonal necrosis. We encountered a 48-year-old female patient presenting with a history of subacute onset, progressive, painless visual loss over the past year without any history suggestive of infective, toxic, or immune-related illnesses. The patient's vision was severely impaired, which was reduced to hand movements and counting fingers at a distance of 1 foot. Ophthalmological examination revealed bilateral optic disc pallor, indicative of optic atrophy, and bilateral pupillary responses were sluggish. The rest of the neurological examination was noncontributory.

MRI revealed attenuation of retrobulbar segments of bilateral optic nerves with altered signal intensity over an approximate 1.3 cm long segment. VEP demonstrated bilateral prolonged P100 latency, with 127 ms in the right and 126 ms in the left eye. The patient tested positive for anti-nuclear antibody (ANA) by the immune-fixation (IF) method, showing a speckled pattern with a titer of 1:200. The serum neuromyelitis optica-myelin oligoclonal glycoprotein (NMO-MOG) panel was negative. Oligoclonal bands (OCBs) were positive in both serum and CSF, indicating a systemic autoimmune disease process.

Anti-Smith antibody levels measured by enzyme-linked immunosorbent assay (ELISA) were positive with a value of 40.79 (>20 being positive), showing a specificity of 96–98% for SLE. Additional investigations revealed low C4 and normal C3 levels. The retinal nerve fiber layer (RNFL) of the optic nerve was also thinned. Thus, these findings confirm the diagnosis of bilateral optic neuritis secondary to SLE, presenting as an isolated syndrome.

SLE-related ON follows a different course and requires distinct management compared to idiopathic or other autoimmune-related ON[5]. The prognosis and visual outcomes in SLE-

related ON are directly influenced by specific and prolonged treatment compared to primary demyelinating insult. Timely identification of the disease and early treatment are crucial for achieving better visual outcomes and improving prognosis.

This case highlights the importance of considering vasculitis as a differential diagnosis for bilateral painless visual loss apart from demyelinating causes. A thorough vasculitis workup should be a mandatory part of the diagnostic process. Timely administration of appropriate immunosuppressive drugs can help prevent further damage and potentially aid in the recovery of vision loss.

Ethical approval

Institutional Review Board approval is not required.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of AI-assisted technology for assisting in the writing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Bennett JL. Optic neuritis. Continuum (Minneap Minn) 2019;25:1236-64.
2. Kampylafka EI, Alexopoulos H, Kosmidis ML, Panagiotakos DB, Vlachoyiannopoulos PG, Dalakas MC, *et al*. Incidence and prevalence of major central nervous system involvement in systemic lupus erythematosus: A 3-year prospective study of 370 patients. PLoS One 2013;8:e55843.
3. Palejwala NV, Walia HS, Yeh S. Ocular manifestations of systemic lupus erythematosus: A review of the literature. Autoimmune Dis 2012;2012:2012
4. Semon HC, Wolff E. Acute lupus erythematosus, with fundus lesions. Proc R Soc Med 1933;27:153-7.
5. Yuna UN, Cinting DV. Atypical optic neuritis as an initial manifestation of systemic lupus erythematosus: A case report. Available from: https://perpustakaanrsmcicendo.com/wp-content/uploads/2023/07/L110.pdf [Accessed 4 July 2024].

How to cite this article: Kashyap VP, Bhat MK. Rare case of isolated optic neuritis due to systemic lupus erythematosus (SLE). Future Health. 2024;2:174-5. doi: 10.25259/FH_50_2024