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CLINICAL IMAGE

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An uncommon cause of loss of vision in a dialysis patient with lupus

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Key Clinical Message

Optic neuropathy is an uncommon finding in dialysis patients and has been associated with uremia, ischemia (arteritic and nonarteritic), drugs (isoniazid, ethambutol), infections (tuberculosis), and intracranial hypertension. Inflammatory optic neuritis associated with lupus is relatively rare, but clinicians need to be aware of this condition and obtain urgent ophthalmology consultation.

KEYWORDS

dialysis, lupus, optic neuritis

1 | QUIZ QUESTION: WHAT IS THE DIAGNOSIS?

A 50-year-old Indian-American woman with a history of end-stage renal disease (ESRD) secondary to Lupus nephritis, on dialysis for 2 years presented with "foggy vision" in the left eye, for six days. Ophthalmology examination revealed decreased left eye visual acuity of 20/400 (20/60 two months ago), clear cornea without afferent pupillary defect. Fundus examination showed optic disk edema with mild obscuration vessels and peripapillary flame hemorrhages and retinal pigment epithelial mottling of the macula (Figure 1A), suggestive of inflammatory optic neuritis from Lupus. Neuromyelitis optica spectrum disorders (NMOSD) which can be associated with lupus were considered, but MRI of the brain and orbits was unremarkable for any inflammatory lesions (Figure 1B).

Inflammatory optic neuritis associated with lupus is uncommon and occurs in <1% of the patients with systemic lupus erythematosus.[1] As clinical and serological lupus activity is substantially reduced after the onset of ESRD, the incidence of optic neuritis is expected to be further lower in

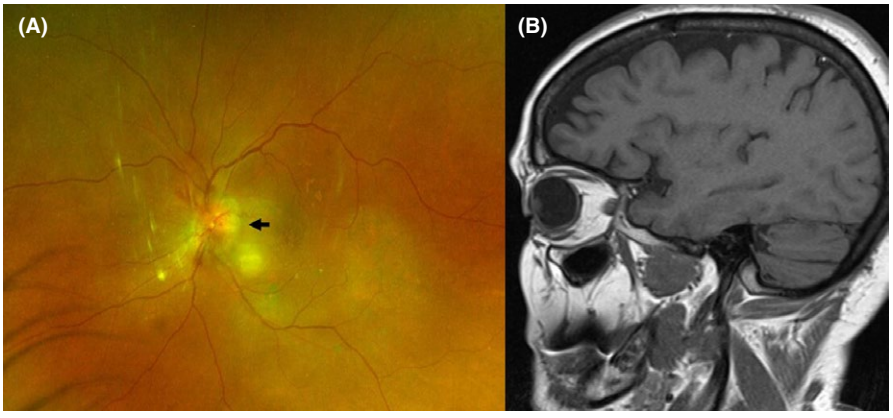

FIGURE 1 A, Fundus examination of the left eye showing optic disk edema with mild obscuration vessels (arrow) and peripapillary flame hemorrhages and retinal pigment epithelial mottling of the macula, consistent with inflammatory optic neuritis. B, Unremarkable magnetic resonance imaging (MRI) of the brain and orbit

these patients.[2] Our patient was treated with systemic steroids [intravenous methylprednisolone 250 mg for 3 days followed by a tapering course of oral prednisone over a 3-month period] leading to a gradual improvement in vision. Apart from eye infections related to dialysis access,[3] optic neuritis from Lupus is another important ophthalmologic condition that Nephrologists need to be familiar with to facilitate prompt treatment. Also, it is of note that NMOSD should be included in the differential diagnosis when patients do not improve with glucocorticoid therapy alone and may need therapeutic plasma exchange. Checking aquaporin-4 (AQP4) serum autoantibody would be useful in such cases.[4]

ETHICAL APPROVAL

This article does not contain any studies with human participants or animals performed by any of the authors. IRB approval is not applicable for a single case study.

CONFLICT OF INTEREST

The authors have declared that no conflict of interest exists.

AUTHOR CONTRIBUTION

The authors have made substantial contribution to the preparation of this manuscript. JLL and GC: drafted the initial version of the manuscript. AK: reviewed and revised the manuscript for critically important intellectual content and prepared the revised version.

Informed Consent: Obtained for the publication of this case study.

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