Acute syphilitic posterior placoid chorioretinopathy

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ARTICLE INFO

Keywords:
Syphilis
Ocular syphilis
Posterior placoid chorioretinopathy

1. Case report

A 60-year-old man, with no known history of HIV, ocular or sexually transmitted infections, presented with new onset flashing lights and decreased vision in his right eye (Snellen 20/200) for 4 days. Dilated fundoscopic examination (Fig. 1) revealed a whitish placoid choriretinal lesion in the superonasal macula (A) that exhibited abnormal hyperautofluorescence with an active leading edge on fundus autofluorescence imaging (B). OCT (C) showed a constellation of findings that are pathognomonic for acute syphilitic posterior placoid chorioretinitis (ASPPC), such as disruption of ellipsoid zone, irregular RPE nodular thickening, subretinal fluid and punctate hyperreflectivity in the choroid. \(^1,2\) Laboratory testing confirmed the presence of Treponema Pallidum IgG, with a RPR titer of 1:32. Patient’s visual acuity improved to 20/20 at his 4-month follow-up, after completion of 14 days of IV penicillin G 3,000,000 units given every 4 h.

2. Discussion

The incidence of syphilis has been progressively increasing in the Western world. Approximately, 115,000 new cases were reported in the United States in 2018 alone, 30% of which comprised of primary and secondary stages. \(^3\) Ocular syphilis, a subset of neurosyphilis, can occur at any stage of the disease and affect any structure of the eye. Often times, it is the only presenting sign of syphilis. Patients with ASPPC usually present with complaints of blurry vision and are at risk of permanent blindness if left untreated. Our case demonstrated a pathognomonic placoid lesion in the posterior pole on clinical examination and en face fundus imaging, with typical changes (disruption of ellipsoid zone, irregular RPE nodular thickening, subretinal fluid and punctate hyperreflectivity in the choroid) seen on cross-sectional OCT images. \(^1,2\) In addition to serologic testing with RPR/VDRL, Centers for Disease Control and Prevention recommends cerebrospinal fluid (CSF) analysis in patients with ocular syphilis to rule out neurosyphilis by a treponema-specific test (such as treponema pallidum particle agglutination assay or syphilis IgG). Evaluation for human immunodeficiency virus (HIV) and concomitant sexually transmitted infections with notification of the local health department is also indicated. Although association of ASPPC and HIV co-infection has been reported, no difference in long-term visual outcomes has been observed with HIV co-infection. \(^1\) Recommended treatment for ocular syphilis with choriretinal involvement is identical to that of neurosyphilis and most patients will show complete resolution with treatment. \(^2\) CSF RPR trends may be followed over time to assess response to treatment.

3. Conclusion

Syphilis can present as ocular syphilis during any stage of the disease, and can affect any structure of the eye. With a rise in number of cases in the United States, syphilis should be considered in all patients with intraocular inflammation. While acute syphilitic posterior placoid chorioretinopathy is a pathognomonic manifestation of ocular syphilis, ocular syphilis can have other presentations as well; timely identification and management of this disease is crucial in preventing permanent blindness and systemic complications.

Patient consent

Consent to publish the case report was not obtained. This report does not contain any personal information that could lead to the identification of the patient.

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https://doi.org/10.1016/j.ajoc.2022.101361
Received 23 April 2021; Received in revised form 30 November 2021; Accepted 22 January 2022
Available online 25 January 2022
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American Journal of Ophthalmology Case Reports 25 (2022) 101361

Funding
No funding or grant support.

Compliance with authorship requirements
All authors attest that they meet the current ICMJE criteria for Authorship.

Declaration of competing interest
The authors have no financial disclosures.

Acknowledgments
None.

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Fig. 1. (A) Fundoscopic examination revealed a whitish placoid chorioretinal lesion in the superonasal macula. (B) Corresponding abnormal hyperautofluorescence with an active leading edge on fundus autofluorescence imaging. (C) Normal ellipsoid zone (green arrowhead); Disruption of the ellipsoid zone (yellow arrowhead); Irregular, nodular thickening of the retinal pigment epithelium (red arrowhead); subretinal fluid (red arrow); and punctate hyperreflectivity in the choroid (yellow arrow) on optical coherence tomography.

S. Kherani et al.