MEGA JOURNAL OF CASE REPORTS

OPEN ACCESS

Case Presentation

Compiled Date: January 09, 2025

A Challenging Diagnosis of Atypical Ocular Syphilis: Unilateral Macular Photoreceptor Folding and the Importance of Clinical Vigilance

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Abstract

Ocular syphilis is a rare manifestation of Treponema pallidum infection, capable of affecting any part of the eye and causing serious complications, including irreversible visual loss. In recent years, an increase in syphilis incidence has been observed in various regions, bringing more attention to its atypical manifestations, such as ocular involvement. This article reviews the recent literature on the epidemiology, clinical manifestations, diagnosis, and management of ocular syphilis.

Keywords: Syphilis; Treponema pallidum; Rare; Atypical; Visual loss

Introduction

Syphilis is a chronic, systemic, and multistage bacterial infection caused by *Treponema pallidum*. Despite being an ancient disease, its incidence has globally increased, particularly among at-risk populations such as men who have sex with men (MSM) and individuals co-infected with HIV. Ocular syphilis is an uncommon but significant manifestation of the disease, which can occur at any stage, especially in secondary and tertiary phases. The clinical presentation of ocular syphilis is varied, including uveitis, retinitis, optic neuritis, chorioretinitis, and retinal vasculitis. These conditions can be mistaken for other ophthalmologic diseases, often delaying diagnosis. The lack of timely treatment may result in severe complications such as irreversible blindness, highlighting the importance of early recognition and appropriate therapeutic approaches. Diagnosis is based on a combination of detailed clinical history, comprehensive ophthalmologic examination, and laboratory tests such as VDRL, FTA-ABS, and rapid treponemal tests. Penicillin remains the treatment of choice, demonstrating high efficacy in symptom reversal and prevention of sequelae.

Materials and Methods

Data for this study were obtained through a review of the patient's electronic medical records. A literature review was conducted using the PUBMED and ScienceDirect databases.

Objective

Report a case of unilateral ocular syphilis with atypical manifestations, presenting its clinical signs and imaging examinations, aiming to stimulate discussion on this rare ophthalmologic condition. Additionally, to raise awareness within the scientific community about the importance of considering and suspecting this pathology in the differential diagnosis.

Case Presentation

This work presents a challenging clinical case of a 24-year-old female patient. Patient reported visual blurring in the right eye associated with a central spot vision loss, starting one week before without progression. Diagnosed with controlled asthma, the patient exhibited reduced visual acuity (20/200 Right Eye (OD) and 20/20 Left Eye (OS), with no changes in biomicroscopy and retinal mapping. The OCT examination revealed folding of photoreceptor layers in the macula **(Figure 1)**, indicating a complication that required a more in-depth investigative approach Laboratory tests showed positive results for VDRL and reactive FTAbs, along with the presence of the HLA B51 marker. In collaboration with the infectious Disease Department, patient was treated with benzathine penicillin and 20 mg prednisone. Completion of the treatment resulted in the normalization of OCT **(Figure 2)** and restoration of visual acuity to 20/20.

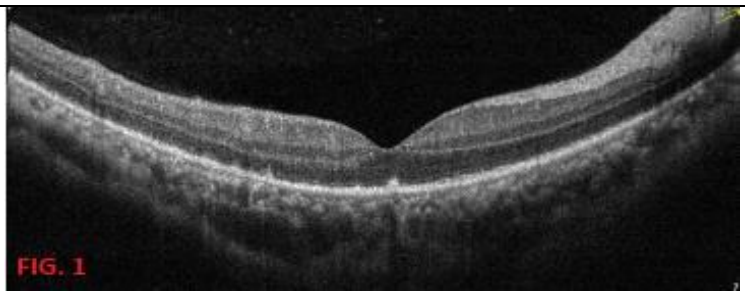

Figure 1: The OCT examination revealed folding of photoreceptor layers in the macula.

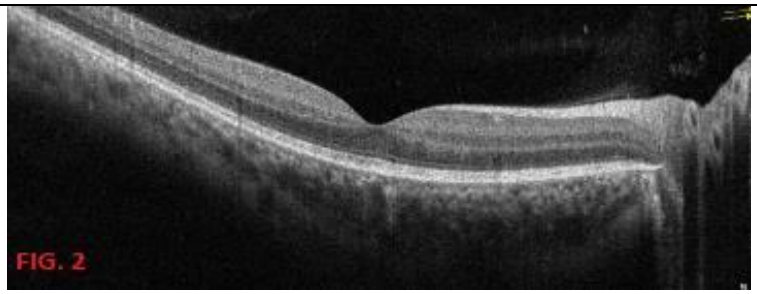

Figure 2: Completion of the treatment resulted in the normalization of OCT.

Discussion

This case report highlights the importance of vigilance in challenging situations, presenting a patient with atypical ocular syphilis, devoid of classic symptoms. The absence of conventional findings, such as panuveitis or syphilitic papilledema, underscores the multifaceted and silent nature of syphilis, making the diagnosis more complex. This case reinforces the need for a comprehensive approach, despite the absence of typical signs, emphasizing the importance of clinical suspicion and thorough evaluation. The shared experience contributes to understanding atypical manifestations of ocular syphilis, strengthening clinical readiness, and highlighting the importance of continuous updates in ophthalmology **[1-10]**.

Ethical Statement

Informed consent has been provided by the patient for publication of this case report.

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Citation of this Article

dos Santos RT, Manente M, Goedert LM, Araujo I, Lai IK, Buschle MN, Muzachi F, Ferri Barreto LS, Ruppen IC, do Carmo VAO, Dallaqua Bitiati LB, da Rosa Piccoli L, Petermann G, Gois GA, Otani LH, Ibuki Otani FS, Giovanelli Mansano GE, Leopoldino N and Jaques KT. A Challenging Diagnosis of Atypical Ocular Syphilis: Unilateral Macular Photoreceptor Folding and the Importance of Clinical Vigilance. Mega J Case Rep. 2025;8(1):2001-2004.

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