EMERGENCY PRESENTATION OF NEUROSYPHILIS: ACUTE BILATERAL DISC OEDEMA

AUTHORS

Radhini Chowdhary, Krishna Teja Bogarappu

AFFILIATION

University Hospitals Morecambe Bay NHS Foundation Trust

INTRODUCTION

- Syphilis is called 'the great masquerader' with 86% of presentations atypical [1] so high index of suspicion needed in patients with HIV / risk factors.
- Gradually increasing incidence since 2000 [2] - need for awareness about its various presentations
- Ocular structures among most frequently affected extra-genital sites[3]
- Optic nerve involvement is a common finding in patients with HIV-associated syphilis - link between immunosuppression and optic nerve damage [4]

CASE REPORT

A 57-year-old man presented with sudden deterioration in vision of both the eyes, left more than right.
Floaters in BE; vision as if lights turned off; frontal headaches; dizziness. Reports 12 kg weight loss.
Known HIV with undetectable viral load for years.
Noticed desaturated colour vision
Also had frontal headache and dizziness for a few days
New widespread scaly rash on torso and legs

EXAMINATION

Clear cornea; AS quiet; IOP was WNL
BE disc swelling; No RAPD; Ishihara 3/17
Vitreous cells present
Blurred disc margins
OCT - disc edema
B-scan - no optic disc drusen
Visual Fields: Bilateral significant central scotomas

OCT AND VISUAL ACUITY

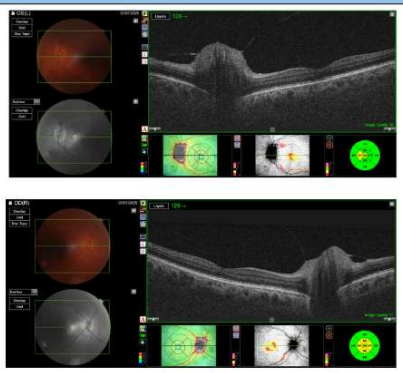

Fig. 1: OCT of LE (top); RE (bottom)

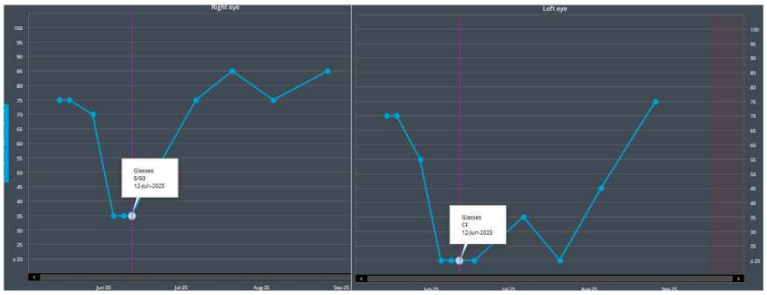

Fig. 2: Visual Acuity of RE and LE, showing sudden drop (6/60 RE, CF LE) which later improved after steroids and antibiotics were given

MANAGEMENT

- MRI Orbit /MR Venogram both normal
- Lumbar puncture (LP): high normal opening pressure; CSF lymphocytosis, meningitis and encephalitis panel negative
- Syphilis screen 5/6 positive, RPR positive 1:512, TPHA positive 1:20480
- Referred to tertiary care hospital - Uveitis clinic
- Given IV Ceftriaxone ; high dose oral prednisolone
- **Vision improved to 6/6 RE and 6/9 LE**
- Important role of ophthalmology in diagnosing systemic and neurological conditions

DISCUSSION

- Neurosyphilis is known to present with papillitis and papilledema but acute loss of vision less common.
- Blurred disc margins, reduced colour vision, normal opening pressure, improvement on steroids favours papillitis [5]
- Varied ocular manifestations: anterior uveitis, scleritis, interstitial keratitis, panuveitis, retinal vasculitis, acute syphilitic posterior placoid chorioretinitis. [3]
- **Key learning point:** In HIV positive patients with disc oedema and acute vision loss, neurosyphilis must be considered as a differential

References:

1. Bhai, S., & Lyons, J. L. (2015). Neurosyphilis Update: Atypical is the New Typical. Current infectious disease reports, 17(5), 481. https://doi.org/10.1007/s11908-015-0481-x
2. Centers for Disease Control and Prevention . Sexually Transmitted Disease Surveillance 2018. Atlanta: Department of Health and Human Services; 2019. Sexually transmitted disease surveillance 2018
3. Ye Z, Yang M, Zou Y, Zhang J, Deng J, Zong Y, Ohno-Matsui K, Kamoi K. Syphilis and the Eye: Clinical Features, Diagnostic Challenges, and Evolving Therapeutic Paradigms. Pathogens. 2025; 14(9):852. https://doi.org/10.3390/pathogens14090852
4. Chauhan, K.; Fonollosa, A.; Giralt, L.; Artaraz, J.; Randerson, E.L.; Goldstein, D.A.; Furtado, J.M.; Smith, J.R.; Sudharshan, S.; Ahmed, A.S. Demystifying ocular syphilis–A major review. *Ocul. Immunol. Inflamm.* **2023**, *31*, 1425–1439.
5. Perry ME, Cooper S, Corry S. Neurosyphilis presenting with papillitis. EJCRIM 2017;4 doi:10.12890/2017_000718