VOLUME - 13, ISSUE - 12, DECEMBER - 2024 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Opthalmology

A CLINICAL ODYSSEY INTO OCULAR TB- SERPIGENOUS LIKE CHOROIDITIS, UNMASKED !!

Dr. Sameeksha. M Junior Resident, Department Of Ophthalmology, Sri Devaraj Urs Medical College, Tamaka Kolar, Karnataka, India

Dr. Inchara. N* Associate Professor, Department Of Ophthalmology, Sri Devaraj Urs Medical College, Tamaka, Kolar, Karnataka, India. *Corresponding Author

ABSTRACT Another rare cause of posterior uveitis that falls within the category of white dot syndromes is serpiginous choroiditis. Although it is caused by an inflammatory process, diseases like tuberculosis (TB) may be correlated with it (serpiginous-like choroiditis). Southeast Asian nations are more likely than Western nations to report cases of tubercular serpiginous-like choroiditis. We report a case of a middle-aged Indian female with bilateral grey-yellowish subretinal choroidal infiltrates with active scalloped edges having a positive TB-QuantiFERON Gold test who responded excellently to the treatment of systemic steroids (given initially to control the acute inflammation) while on anti-tubercular (anti-TB) therapy. The lesions finally completely healed on the anti-TB therapy and treatment was terminated.

KEYWORDS : Serpiginous like choroiditis, ocular TB, white dot syndrome

INTRODUCTION:

Serpiginous choroiditis (SC) is a chronic, bilateral, recurrent inflammation of choroid and choriocapillaris with secondary involvement of RPE (1)

Among infectious etiologies causing choroiditis mimicking SC, TB is the most common. (2)

The choriocapillaris and RPE are key sites of inflammation.

Objectives :

As the ideal treatment is still under consideration we would like to demonstrate, with our case report, the benefit of immunosuppressive and multiple anti-tubercular treatment in order to stop the evolution of the disease which can otherwise be deleterious for the eye.

MATERIAL AND METHODS

A 50-year-old female, homemaker came with complaints of painless progressive diminution of vision in right eyes of 3 days duration, sudden in onset. H/O ear surgery 8 months back for which she stayed in hospital for 21 days. No H/O diurnal variation in vision, no colored halos or pain. Patient has no H/O evening rise in temperature, weight loss, cough with expectoration. The patient is not a known case of diabetes, hypertension, asthma, epilepsy.

On ocular examination, the **right eye** had UCVA- ½ mt , the anterior segment was within normal limits, fundus showed 0.3 cupping with creamy yellow placoid geographic patches, with ill-defined margins spreading centrifugally with finger-like projections suggesting active serpiginous-like choroidal lesions at the macula with absent foveal reflex, no vitreous cells and IOP by Golmans applanation tonometer was 13mmHg while **left eye** had UCVA- 6/60, 0.3:1 cupping, greyish geographic patches with projections in inactive/ healing phase, intact foveal reflex and absent vitreous cells.

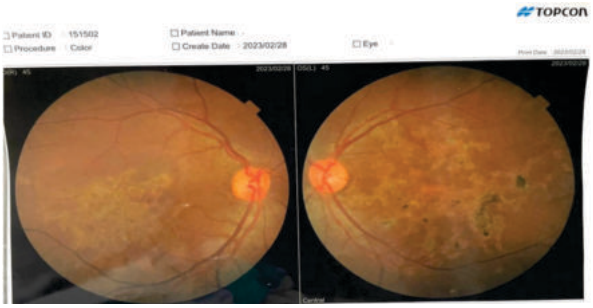

Fig 1- Fundus photograph depicting SLC lesions in both eyes

Lab investigations were within the normal range.

Chest XRAY AND HRCT thorax – NORMAL, URINE ROUTINE- NORMAL
VDRL- non-reactive ESR, CRP- NEGATIVE, lipid profile –WNL
Mantoux test and QuantiFERON TB GOLD (IGRA)-POSITIVE

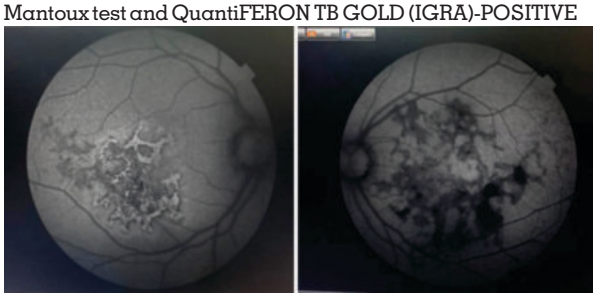

Fig 2- FAF- showing hyper autofluorescent serpiginous-like choroiditis lesions.

The patient was referred to TB and chest department and was started on standard ATT (HRZE regimen) according to DOTS. Intensive phase (rifampicin 150 mg, isoniazid 75 mg, pyrazinamide 400 mg, ethambutol 275 mg) for two months. Continuous phase (rifampicin 150 mg, isoniazid 75 mg, ethambutol 275 mg) for the next seven months.

The patient was also concurrently started on oral corticosteroids - prednisolone 40mg OD and was tapered every 5 days. She was asked to follow up in the OPD every 15 days to monitor LFT and drug-induced optic neuropathy.

After 1 month of ATT, her OD fundus showed diffuse spread of the lesion while her left fundus showed RPE mottling with atrophy suggestive of healing lesions and UCVA was OD- CF1/2 mt and left eye improved to 6/36.

Fig. 3 – Fundus photography showing healing lesions in the right eye with paradoxical enlargement of the existing lesion

She was followed up for 14 months regularly. ATT and

steroids were stopped 2 months ago . At follow up VA was 6/60 in the right eye. 6 month follow up image showed slight extension of the lesions.

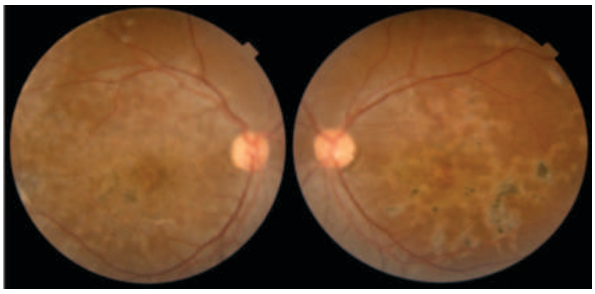

Fig 4- Fundus photograph of the patient at 6 months follow up showing central pigmentary disturbance in the right and left eye suggesting healed lesions

At 1 year follow up, lesions appeared to be healing with chorioretinal lesions appearing as geographic atrophic areas, with pseudopodial extensions and well-demarcated sharp borders, with pigment epithelial hyperplasia at the borders.

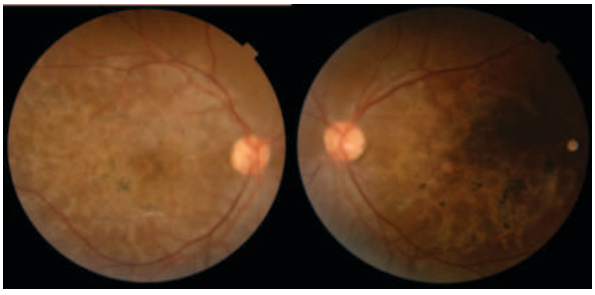

Fig 5- Fundus photograph showing bilateral healed choroiditis lesions

DISCUSSION

In this case a diagnosis of bilateral presumed serpiginous-like choroiditis was considered in a middle-aged female who presented with snake-like spreading lesions in both her fundi, after ruling out other causes of uveitis. her lesions started to appear in the posterior pole involving the macula and center of the healed lesions had pigment clumping.

The patient was initiated with ATT and oral steroids, however, a paradoxical worsening in the form of expansile lesions were noticed which could be due to hyperacute immunological reaction due to antigen-antibody interaction inciting acute inflammation followed by progressive new foci of choroiditis lesions.

Tubercular choroiditis could be either serpiginous-like choroiditis, or focal or multifocal choroiditis, or tuberculoma. intense inflammatory response maybe seen in anterior and posterior chamber along with delayed presentation of serous retinal detachment. (3)

The Retinal pigment epithelium has been shown to harbor Mycobacterium tuberculosis, a site difficult to reach for anti-tubercular therapy(4). Therefore, prolonged anti-tubercular therapy is needed but does not address the fundamental immune mechanism at the origin of the disease and aggressive immunosuppressive therapy seems to be needed in parallel in this case.

There is no consensus on the proper management of SLC. Many immunosuppressives with different dosages and different combinations have been reported.(5,6)

CONCLUSION

This is a rare case of serpiginous like choroiditis secondary to tuberculosis, which was detected in its early stage in Right eye and in inactive/healing stage in Left eye. Early detection and initiation of ATT with steroids can restore the vision unlike in Left eye. As these lesions have high recurrence rate, regular follow up and monitoring is required to look for the regression of the disease, paradoxical worsening or aggravation of the disease due to steroids.

Acknowledgement

The authors acknowledge with heartfelt gratitude to all the scholars whose work has been cited in this study and the immense guidance given by their work.

Financial Support And Sponsorship: Nil
Conflicts Of Interest: No conflict of interest.

REFERENCES

1. Majumder PD, Biswas J, Gupta A. Enigma of serpiginous choroiditis. Indian J Ophthalmol. 2019;**67**(3):325–333.
2. Ocular signs predictive of tubercular uveitis. Gupta A, Bansal R, Gupta V, Sharma A, Bambery P. Am J Ophthalmol. 2010;149:562–570.
3. Gan WL, Jones NP. Serpiginous-like choroiditis as a marker for tuberculosis in a non-endemic area. Br J Ophthalmol. 2013;97(5):644–647. doi: 10.1136/bjophthalmol-2012-302918
4. Gupta V, Gupta A, Arora S, Bambery P, Dogra MR, Agarwal A. Presumed tubercular sepiginous-like choroiditis: clinical presentations and management. Ophthalmology. 2003;**110**(9):1744–1749. doi: 10.1016/S0161-6420(03)00619-
5. Clinical profile, treatment, and visual outcome of serpiginous choroiditis. Abrez H, Biswas J, Sudharshan S. Ocul Immunol Inflamm. 2007;15:325–335.
6. Serpiginous choroiditis. Lim WK, Buggage RR, Nussenblatt RB. Surv Ophthalmol. 2005;50:231–244. doi: 10.1016/j.survophthal.2005.02.010.