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Case Report

A case report of bilateral, symmetrical intermediate uveitis in a post COVID 19 Indian patient

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ABSTRACT

Many ocular manifestations such as conjunctival congestion and central retinal artery occlusion were noticed in covid and post-covid patients, ut a case of bilateral symmetrical intermediate uveitis in post covid patient has been very rarely reported till date. A 62-year old hypertensive female who suffered from COVID 19 illness complained of diminution of vision for both distance and near along with complaints of floaters in both the eyes three months after covid recovery. After carrying out detailed systemic and ophthalmic evaluation, she was diagnosed with bilateral symmetrical intermediate uveitis which responded very well to tapering doses of oral and topical steroids. Early diagnosis and intervention is very essential to treat a y ocular symptoms in post-covid patients to regain normal visual acuity.

Key Messages: This is a very rare case of bilateral symmetrical intermediate uveitis in post-covid Indian patient which is responsive systemic and topical steroids.

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1. Introduction

Various ocular manifestation were reported in COVID 19 patients which includes conjunctivitis, central retinal artery occlusion, mucormycosis etc. A 2021 meta-analysis by Nasiri et al. reported a pooled prevalence of all ocular manifestations among 7,300 COVID-19 patients as 11.03%, with the most frequent ocular manifestation being conjunctivitis (88.8%), followed by dry eye or foreign body sensation (16%), eye redness (13.3%) which were among the most frequent symptoms reported.¹ We report an interesting case of post COVID 19 illness presenting as bilateral intermediate uveitis with macular oedema in an Indian patient. Only one case of bilateral intermediate uveitis has been reported globally till now.

2. Case History

A 64-year old pseudophakic female complaining of diminution of vision in both the eyes for both distance and near and floaters in front of both eyes since fifteen days presented to the outpatient department. She is a known case of hypertension for which she is on antihypertensive medications since past 9 months with well controlled blood pressure.

Patient had undergone uneventful both eyes cataract extraction with IOL implantation five years ago and had achieved & maintained vision of 6/6, N6 post-surgery for several years.

She had a history of COVID 19 pneumonia infection three months ago. Patient required hospitalization due to reduced blood oxygen saturation level. During hospital stay, she was given injection Remdesivir, IV along with systemic steroids. Patient was discharged with the stable vitals.

After 5 months of recovery from covid infection, patient complained of diminution of vision for both

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distance and near and floaters in front of both the eyes since fifteen days, with the visual acuity for distance 6/36 (20/120) on Snellen's chart and for near <N36 on Roman's chart in both the eyes with best correction of -1.00dc@90 with the addition of +2.50ds for both the eyes. Anterior segment examination was normal. Dilated fundus examination with 90D on slit lamp bio microscopy revealed presence of vitreous cells with foveal thickening suggestive of bilateral symmetric intermediate uveitis with cystoid macular oedema in both the eyes. Intraocular pressure measured with Goldmann's applanation tonometer was normal. Clinical diagnosis of macular oedema due to intermediate uveitis was confirmed on Optical Coherence Tomography scan of macula as shown in Figure 1a (Optical Coherence Tomography of macula of the right eye on first visit.) and 2a (Optical Coherence Tomography of macula of the left eye on first visit.) Baseline fundus photos and OCT angiography was documented. Patient was prescribed topical steroids (Difluprednate) four times per day, topical non - steroidal anti- inflammatory drugs (Bromfenac) two times per day. After consultation with Physician, she was started on oral steroids (tablet prednisolone) one mg per kg per week then slowly taper over two months.

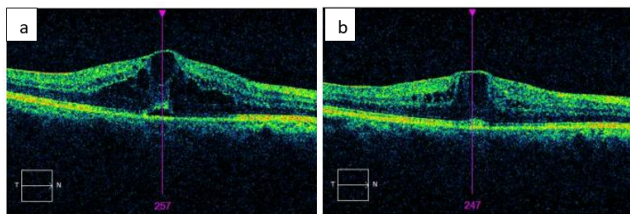


Fig. 1:

At each follow up visit, visual acuity was noted and OCT macula was documented.

After eight weeks of treatment, her vision in both eyes improved to 6/9p (20/30p), N8 with regressing vitritis and cystoid macular oedema in both the eyes as shown in the Figure 1b (Optical Coherence Tomography of macula of the right eye after eight weeks of follow up.) and 2b (Optical Coherence Tomography of macula of the left eye after eight weeks of follow up.). Patient has been asked for further regular follow up.

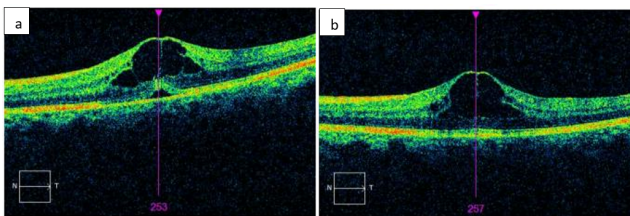


Fig. 2:

3. Discussion

Causes of intermediate uveitis are broadly divided into infectious such as Tuberculosis, Lyme's disease, cat-scratch disease, Toxocariasis and non-infectious causes like sarcoidosis, multiple sclerosis, lymphoma, inflammatory bowel disease. Idiopathic causes are labelled as pars planitis.

Most of the cases of intermediate uveitis are bilateral but asymmetrical. Bilateral symmetrical intermediate uveitis is very rare.

Most common eye symptoms associated with COVID 19 infections reported are acute conjunctivitis symptoms, including eye redness, ocular irritation, eye soreness, foreign body sensation, congestion and chemosis.²

Ilen Ferreira Costa et al. studied ocular findings amongst 64 patient surviving COVID 19 found that none of them had signs of anterior or posterior segment uveitis.³

Katherine et al. attempted to collect most up to date information on ophthalmic manifestation of coronavirus found that anterior uveitis as one of the ophthalmic manifestation seen in covid patients with conjunctivitis being common symptom.⁴

A case series studied by Salam Iriqat et al. found that 19 year old patient developed anterior uveitis two months after covid infection. 29 year old male patient who was myopic and complained of blurring of vision and pain in both the eyes for six weeks duration with absent history of joint pain, oral or genital ulcer, or skin rashes. He was suffered from COVID 19 illness two months back. On further evaluation it is found that he had bilateral and intermediate uveitis. And a 62-year old male patient developed posterior uveitis one month after covid infection. All these patients responded well to systemic and topical steroids.⁵

Since our patient showed negative results for Mantoux test and VDRL and did not show any clinical signs of tuberculosis, toxocariasis, lyme's disease, or any such infectious agents well known to cause intermediate uveitis, a clinical diagnosis was made in this patient with the help of history of prior covid infection and occurrence of vitritis with cystoid macular oedema immediately two months after covid infection. With the help of optical coherence tomography scan of macula, a diagnosis of bilateral symmetrical intermediate uveitis due to covid infection was arrived at.

So far, bilateral symmetrical intermediate uveitis has been reported very rarely amongst COVID 19 infectious patient. Till now a case of bilateral intermediate uveitis has been reported by Salam Iriqat et al. in a 29-year old male patient. Visual improvement is seen after starting treatment with systemic steroid and topical steroid. Visual improvement correlated with decreased macular thickness analysed on optical coherence tomography.

4. Source of Funding

None.

5. Conflict of Interest

The authors declare no conflict of interest.

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