

CASE REPORT

NO VISION TO VISION IN A CASE OF BILATERAL RETROBULBAR NEURITIS

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ABSTRACT: Presenting here, a rare case of bilateral retro bulbar neuritis in a 50 year old male patient who has no perception of light for 1 day. Patient was investigated and causes of optic neuritis were ruled out and finally he was treated with systemic steroids and visual outcome was good from no perception of light to 6/12p aided vision in right eye and 6/18p in left eye.

KEYWORDS: Optic neuritis, Retro bulbar neuritis, Systemic steroids.

INTRODUCTION: Retro bulbar neuritis is a type of optic neuritis in which optic nerve gets inflamed from back of the eye to brain. There will be no ophthalmoscopic changes in retro bulbar neuritis, unless the lesion is near to lamina cribrosa, so diagnosis is based on symptoms and investigations alone.¹

CASE REPORT: A 50 year old male patient presented to our OPD with sudden painless progressive loss of vision in both eyes. It started in the left eye 10 days back and after 5 days the right eye was also affected. He was treated with native medication for 10 days and came to our hospital. No history of trauma, seeing flashes of light, floaters, loss of visual field, change in size and shape of objects, diplopia, scalp tenderness. No history of diabetes mellitus, hypertension, asthma, tuberculosis, or any other systemic illness. He is a chronic smoker since 25 years (3 cigarettes per day), and not an alcoholic. No history of any long term drug usage. No history of spectacles usage or any surgeries in the eye.

Ocular examination	Right eye	Left eye
Unaided visual acuity	PL present; PR inaccurate	PL absent
External appearance	Normal	Normal
Slit lamp examination		
Lids	Normal	Normal
Conjunctiva	Normal	Normal
Cornea	Clear	Clear
Anterior chamber	Deep and quiet	Deep and quiet
Pupils	Round, regular and reacting to light	Relative Afferent Pupillary Defect (RAPD) present
Lens	Normal	Normal

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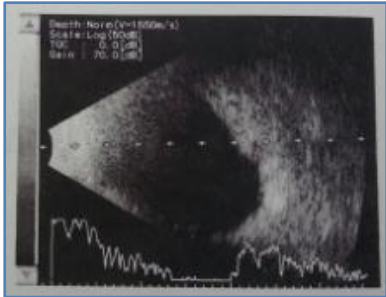
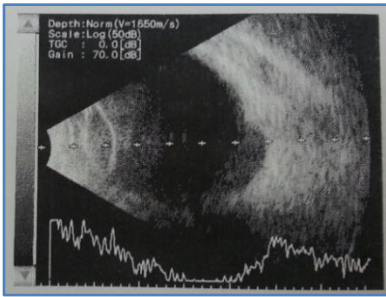
Fundus examination Optic disc Size Shape Color Margins Cup: Disc Vessels Macula Background	Normal Round Pink Well-defined 0.3 Mild arteriolar narrowing + Foveal Reflex + Normal	Normal Round Pink Well-defined 0.3 Mild arteriolar narrowing + Foveal Reflex+ Normal
Color vision	Cannot be performed as vision is PL+	Cannot be performed as vision is PL-

Visual fields could not be done.

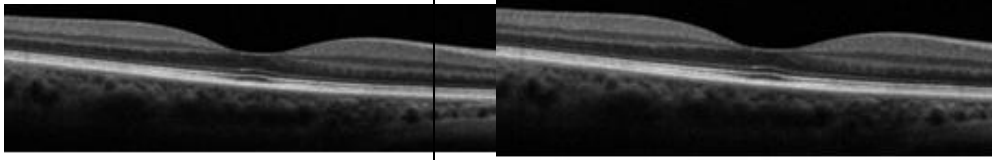
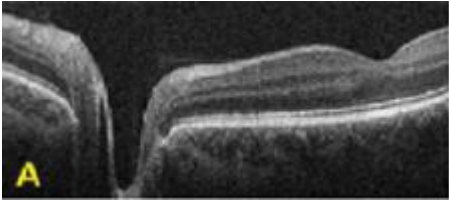
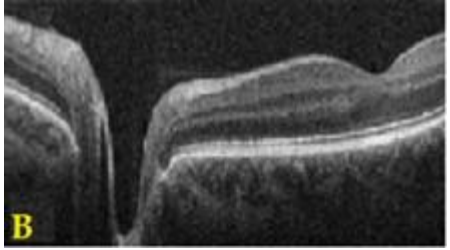
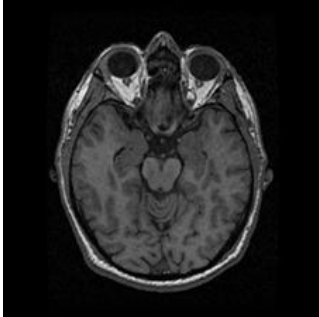
INVESTIGATIONS:

Blood investigations were normal. Vit-B12 assay is in normal range.

B-Scan, OCT, MRI was normal.

INVESTIGATIONS	RIGHT EYE	LEFT EYE
B-SCAN		

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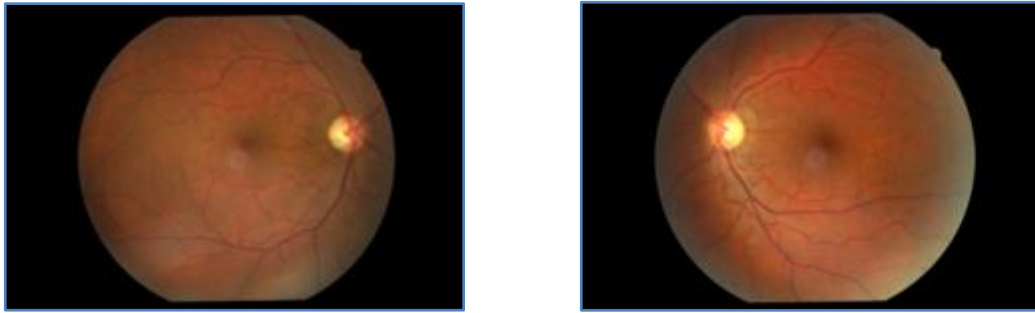
OCT MACULA		
OCT DISC		
MRI SCAN		

TREATMENT: Patient was treated with intra venous methyl prednisolone 500mg in 100ml NS BD for 3 days followed by oral prednisolone 60mg for 11 days and tapered suddenly in 3 days.²

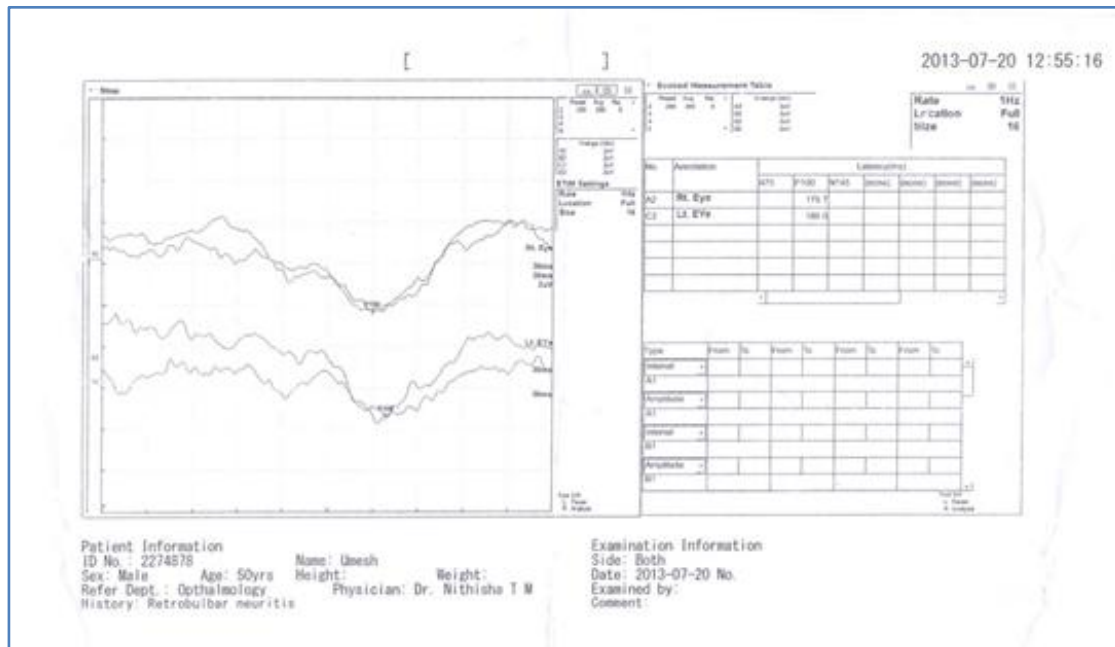
FOLLOW UP:

After therapy with i.v methyl prednisolone	2 days later	2 weeks later	6 Months later
Vision in Right Eye	Counting Fingers 2 meters	6/60 unaided improving to 6/18p	Best corrected visual acuity is 6/12p
Vision in Left Eye	Counting Fingers 1/2 meters	6/60p unaided improving to 6/24	Best corrected visual acuity is 6/18p

- Patient was able to identify blue and green color but unable to identify red color.
- VEP showed delay in P100.
- Fundus showed temporal disc pallor of both the eyes. Rest of fundus findings was normal.



Visual Evoked Potential:



DISCUSSION: Optic neuritis is defined as inflammation of optic nerve, in which optic disc swelling is visible or more commonly, in retro bulbar type of optic neuritis inflammation is posterior to globe without optic disc edema. The etiology of optic neuritis is secondary to demyelination, vasculitis, infection (syphilis, post viral optic neuritis), granulomatous process (wegners granulomatosis, sarcoidosis), or multiple sclerosis. Patient presents with acute or sub-acute vision loss over few days to 2 weeks with recovery starts by one month, majority recover by 2 months. Pain with eye movements is seen in 92 % of cases, decreased color vision, contrast sensitivity, pulfrichs phenomenon of altered perception of motion (due to conduction delay in optic nerve) may be present.¹

On examination decreased visual acuity from 6/9 to no perception of light, RAPD is usually present, optic disc edema is seen in 1/3 of patients. Visual field defects of central, centrocaecal scotomas, altitudinal or nerve fibre bundle defects can be present^{3,4}. Blood investigations, vit-B 12 assay, B-scan, OCT, MRI brain to know the cause should be done. Course of disease varies from several days to 2 weeks and recovery is fairly rapid and then slowly improves over 6-12 months².

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Over 75% patients recover visual acuity to 6/9, however color vision and contrast sensitivity often remain abnormal. Treatment depends on infectious or demyelinating cause and steroids ultimately fastens recovery of vision.²

CONCLUSION: In general, optic neuritis is a clinical diagnosis based upon history and examination findings. Fundoscopic examination helps to differentiate between typical and atypical cases of optic neuritis. Diagnostic tests should be done to rule out causes of optic neuritis.⁵ Steroids can reduce recovery time but do not affect long term outcome. Even no perception of light for 1 day got improved with trial of steroids which decreased the recovery time.

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