NEUROMYELITIS OPTICA, A RARE CASE

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CONFLICT OF INTEREST

- There are no conflicts of interest
- There are no financial supports
- Ethics committee approval has been taken

INTRODUCTION

- Neuromyelitis optica or Devic’s disease is a rare yet severe demyelinating autoimmune inflammatory condition which affects the spinal cord and optic nerve resulting in paralysis and blindness and to study its visual prognosis.
- NMOSD is primarily an astrocytopathy. It involves demyelination and inflammation of multiple spinal cord segments and the optic nerves. NMOSD produces significant axonal loss associated with perivascular lymphocytic infiltration and vascular proliferation. NMO is characterized by a disease specific IgG antibody against the astrocytic aquaporin 4 (AQP4) water channel (also known as the aquaporin-4 autoantibody (anti-AQP4 or AQP4-IgG). The AQP4 water channel membrane protein is concentrated in the optic nerve, area postrema, and spinal cord.AQP4 rich areas of the CNS account for the clinical findings of NMOSD.

MATERIAL AND METHOD

- 10 year old male brought by parents with sudden drastic diminision in right eye since 2 days and gradual progressive diminision of vision in left eye since 15 days associated with pain in extraocular movements in both eye along with fever 1 month back and opinion of department of paediatrics was taken along with clinical correlation with paediatric neurologist, MRI scan of brain and orbit was done.

EXAMINATION

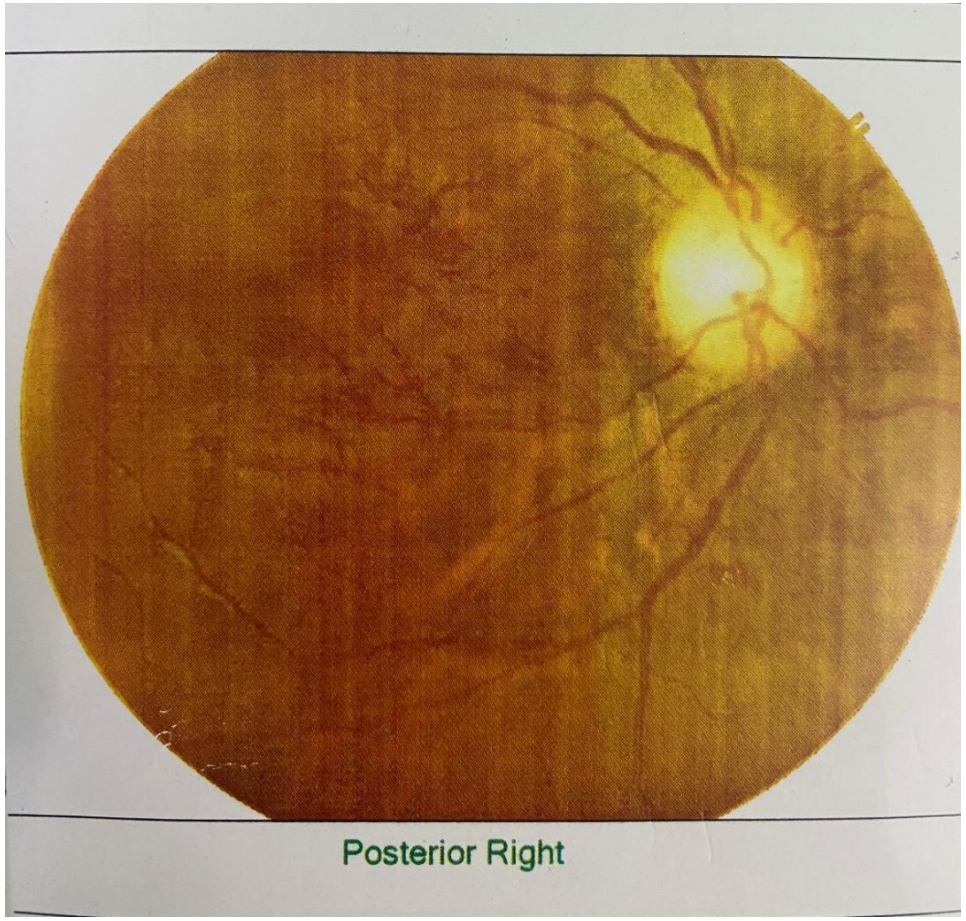
	RIGHT EYE	LEFT EYE
VISUAL ACUITY	FCCF	HM+ , PL+, PR ACCURATE
NEAR VISION	CANT BE ASSESSED	CANT BE ASSESSED
COLOR VISION	CANT BE ASSESSED	CANT BE ASSESSED
LID	NORMAL	NORMAL
CONJUNCTIVA	NORMAL	NORMAL
CORNEA	CLEAR	CLEAR
ANTERIOR CHAMBER	NORMAL DEPTH	NORMAL DEPTH
IRIS	COLOR PATTERN NORMAL	COLOR PATTERN NORMAL
PUPIL	SLUGGISHLY REACTING TO LIGHT	SLUGGISHLY REACTING TO LIGHT

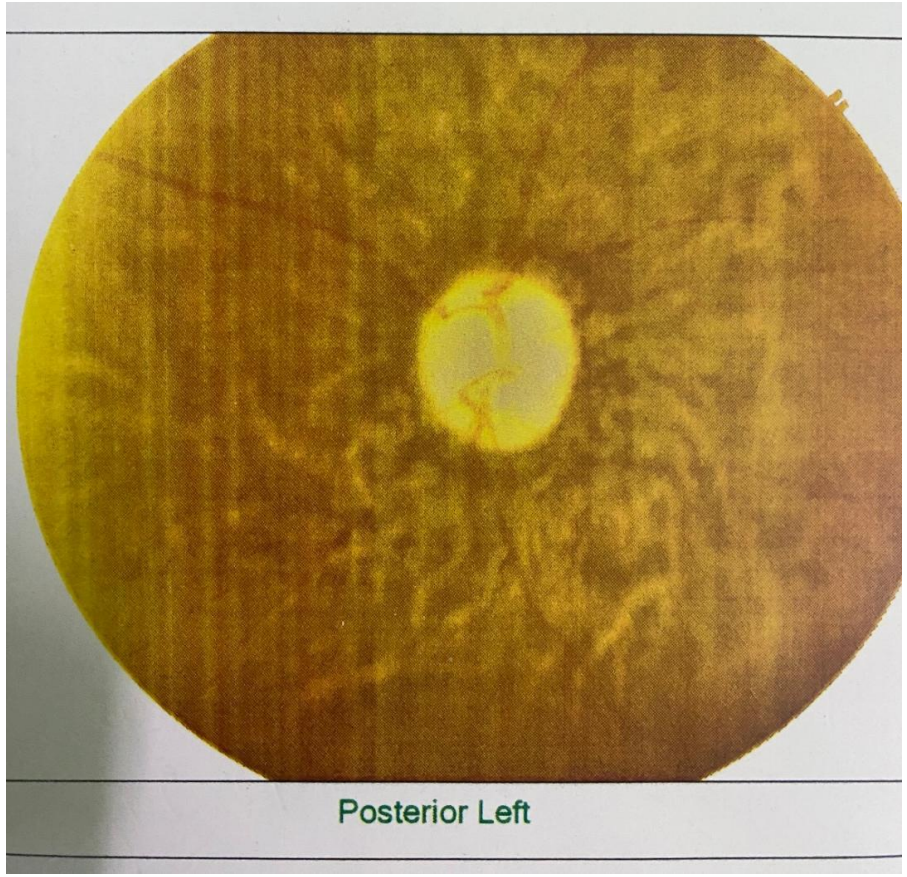
LENS	CLEAR	CLEAR
EXTRAOCULAR MOVEMENTS	PAIN ON ELEVATION	PAIN ON ELEVATION
FUNDUS	GLOW+,MEDIA-CLEAR OD- CDR 0.4, MARGINS-NORMAL, BLOOD VESSELS-NORMAL FR +	GLOW+, MEDIA- HAZY OD- PALE, FR- DULL

RESULTS

- Diagnosis confirmed with MRI brain and orbit and with clinical findings correlated and confirmed by paediatric neurologist suggestive of Neuromyelitis optica , patient was given intravenous methylprednisolone for 5 days.
- Vision on 1 month follow up FCCF in both eyes

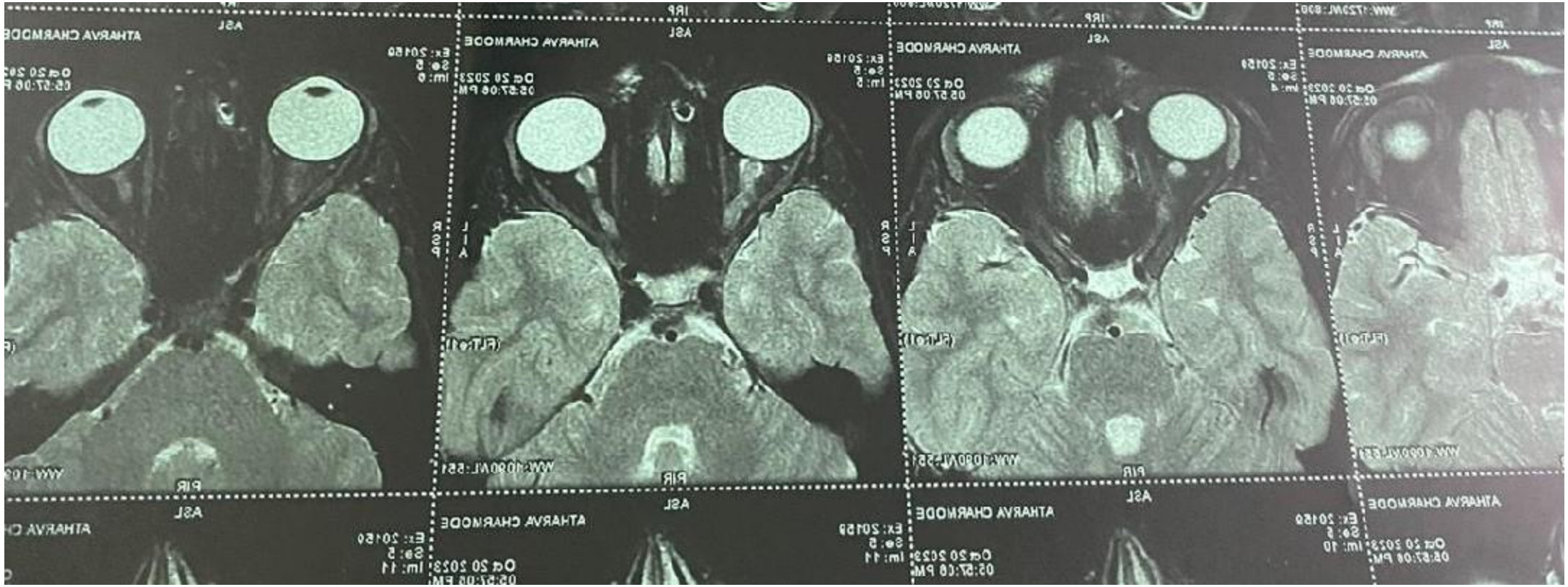
FUNDUS IMAGING





MRI (BRAIN + ORBIT)

- IMAGE SHOWS T2 WEIGHTED SEQUENCES SHOW HYPERINTENSITIES OF BOTH OPTIC NERVES



DISCUSSION

- Side effects such as hepatotoxicity, immunosuppression, lymphoma and other malignancies should be evaluated in patients receiving these medications
- Permanent myelopathy and blindness can occur in NMOSD even after an initially monophasic course.

CONCLUSION

- Neuromyelitis optica has a variable course and prognosis, either relapsing(80-90%) or monophasic type with only 22% showing full recovery suggesting moderate to poor prognosis.

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