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CASE REPORT

Neuromyelitis Optica Spectrum Disorder: A Rare Case Report

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Abstract

Neuromyelitis optica spectrum disorder (NMOSD) is an autoimmune disease that causes demyelination, especially in the optic nerve and spinal cord with typical manifestations of acute optic neuritis and transverse myelitis. 30-year-old male presented with complaints of breathlessness, sudden loss of vision and weakness of all four limbs since 2 days. On neurological examination found weakness in all four limbs with exaggerated deep tendon reflex. Blood tests were within normal limits. He was treated with pulse steroid therapy that is 1gm of methylprednisolone IV for 5 days but no improvement was noted. This is a case of neuromyelitis optica spectrum disorder which shown no improvement with pulse steroid therapy.

Keywords: Neuromyleitis optica; Antibody; Aquaporin-4

Introduction

Neuromyelitis optica spectrum disorder (NMOSD), also known as Devic disease, is a rare chronic disorder of brain and spinal cord dominated by inflammation of optic nerve (optic neuritis) and inflammation of spinal cord (myelitis). The symptoms can occur simultaneously or separated by variable period [(1)].

Case report

30-year-old male presented with complaints of breathlessness, sudden loss of vision and weakness of all four limbs since 2 days. On neurological examination found weakness in all four limbs with exaggerated deep tendon reflex suggestive of involvement of corticospinal tract. Visual acuity on the right and left eyes showed absence of perception of light. Fundoscopic examination revealed bilateral optic atropy. MRI brain showed features suggestive of demyelination disorder. Blood tests were within normal limits. He was treated with pulse steroid therapy that is 1gm of methylprednisolone IV for 5 days but no improvement was noted.

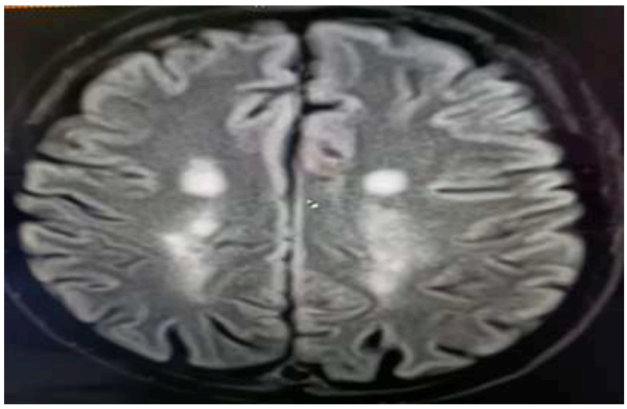

Fig 1. MRI of brain

Discussion

NMOSD is an autoimmune disease that causes severe demyelination. The pathogenesis of NMOSD is still not fully understand. Antibodies to AQP4 play a key role. AQP4 is a water channel that is mostly expressed on podocytes of astrocytic cell membrane forming part of the blood brain barrier.

Conclusion

This is a case of neuromyelitis optica spectrum disorder that showed no improvement with pulse steroid therapy.

References

1) Huda S, Whittam D, Bhojak M, Chamberlain J, Noonan C, Jacob A. Neuromyelitis optica spectrum disorders. *Clin Med (Lond)*. 2019;19(2):169–176. Available from: https://doi.org/10.7861/clinmedicine.19-2-169.