Acute disseminated encephalomyelitis presenting as optic neuritis in a case of idiopathic thrombocytopaenic purpura

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DESCRIPTION

Acute disseminated encephalomyelitis (ADEM) is an uncommon monophasic inflammatory demyelinating disease that usually presents in children and young adults after viral infection. It is thought to be an autoimmune disorder of the central nervous system (CNS).1 Antiviral antibodies or a cell-mediated response to the pathogen cross-react with the myelin autoantigens. Patients usually present with convulsions, paresis, altered sensorium and other signs of CNS involvement. Isolated optic neuritis as the only presenting feature of ADEM is a very rare and reported only in 2% of the cases.2

We present a child with isolated visual loss related to optic neuritis, occurring after an episode of viral illness in a diagnosed case of idiopathic thrombocytopaenic purpura (ITP).

A 7-year-old boy presented with sudden onset diminution of vision in the right eye with pain on ocular movement of 1 week duration. There were no H/O convulsions, weakness, fever and headache.

The patient was a known case of ITP and had a history of viral fever 4 months ago. Visual acuity right eye (RE)—perception of light, accurate projection of rays. Left eye (LE)—6/6. Anterior segment examination RE showed a relative afferent pupillary defect. Fundus examination of the RE revealed disc hyperaemia and oedema, few peripapillary flame-shaped haemorrhages which was suggestive of optic neuritis (figure 1). Fundus (LE) was normal (figure 2). Blood picture showed lymphocytosis, raised erythrocyte sedimentation rate and C reactive protein. Cerebrospinal fluid analysis showed pleocytosis and increased protein concentration. MRI showed features such as non-specific white matter enhancement and optic nerve enhancement (figure 3). Visually evoked potential showed prolonged latency suggestive of optic neuritis.

The patient was started on intravenous methyl prednisolone for 3 days and was then started on tapering doses of oral steroids under the guidance of paediatricians. The patient had thrombocytopaenic episodes which was promptly treated.
After 3 months of follow-up the patient’s vision improved to 6/36. Fundus picture showed mild persisting optic disc oedema (figure 4).

Contributors

AJS was involved in data collection and compilation. SRJG was involved in drafting of the manuscript. NM and MS were involved in final approval of the manuscript.

Competing interests

None.

Patient consent

Obtained.

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