

Mumps Associated Acute Motor Axonal Polyneuropathy

Siyaram Didel¹ · Renu Suthar¹ · Debasish Sahoo¹ · Mini P. Singh² · Jitendra K. Sahu¹

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To the Editor: Aseptic meningitis is the most common central nervous system (CNS) complication of mumps infection. Asymptomatic pleocytosis is seen in 40–60% patients with mumps parotitis; meningitis in 15% and encephalitis in 0.1% [1, 2]. CNS involvement may precede, co-exist or follow parotid swelling. We report a case of mumps encephalitis developing an unusual complication. A partially immunized 8-y-old boy presented with a history of bilateral parotid swelling with odynophagia following a brief febrile illness. He developed intractable vomiting, seizures, status epilepticus on day 5 of illness and subsequently remained in encephalopathic state. Paucity of movement was noted from second week of illness. Lumbar cerebrospinal fluid (CSF) showed lymphocytic pleocytosis, normal glucose and protein. MRI brain was normal. On examination he was wasted, encephalopathic, Glasgow Coma Scale was E4(meaningless)M4V1, had flaccid quadriplegia and generalized areflexia. His younger sibling also had a self-limiting febrile illness with bilateral parotitis. Nerve conduction study showed severe motor predominant axonal polyneuropathy with sensory sparing. IgM ELISA for mumps was positive in both the siblings. The child was managed conservatively with supportive care and he made a complete recovery.

In addition to mumps encephalitis, course of the index child was complicated with flaccid quadriplegia secondary to acute motor axonal polyneuropathy. It is a rare complication

of mumps, only a few cases of Guillain Barre syndrome; overlap with transverse myelitis have been reported [2, 3]. Isolated cases of cranial nerve palsies including optic, facial, trigeminal and oculomotor nerves have been described. Type of neuropathy in mumps is sensory motor axonopathy, and the proposed pathogenesis may be related to molecular mimicry or with direct viral involvement [4].

A critical illness associated polyneuropathy (CIP) was another consideration, however he was never ventilated and risk factors for CIP were absent. Early onset axonal polyneuropathy and complete recovery within 1 mo of illness favors the diagnosis of mumps associated polyneuropathy in the index child. Mumps is an important cause of encephalitis in children and presence of bilateral parotitis points to the diagnosis. Acute motor axonal polyneuropathy is a rare and reversible complication of mumps virus infection.

Compliance with Ethical Standards

Conflict of Interest None.

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✉ Renu Suthar
drrenusuthar@gmail.com

¹ Department of Pediatrics, Postgraduate Institute of Medical Education and Research, Chandigarh 160012, India

² Department of Virology, Postgraduate Institute of Medical Education and Research, Chandigarh, India