ACUTE EXTENSIVE MYELITIS SECONDARY TO ADENOVIRUS INFECTION: A RARE PRESENTATION

Mafalda Rebelo¹, João Neves¹, José Pedro Vieira², Carla Conceição³, Maria João Brito¹
¹ Infectious Diseases Unit, ²Pediatric Neurology, ³Neurorradiology Department
Head of Department: Gonçalo Cordeiro Ferreira
Hospital Dona Estefânia – CHLC - EPE, Lisbon, PORTUGAL

BACKGROUND

Adenoviruses cause a wide spectrum of febrile illnesses in children, most commonly respiratory infections (pharyngitis, coryza and even pneumonia) and acute gastroenteritis. Neurologic manifestations are uncommon, with meningitis and encephalitis being sporadically reported. In this case we present a rare manifestation of parainfectious acute longitudinally extensive myelitis associated with adenoviral disease.

CASE PRESENTATION

Viral upper respiratory infection

Presents to emergency room with:
Irritability followed by prostration, inability to stay seated, imbalance when standing and simmetrical weakness of lower limbs.

Neurologic examination:
Torticollis to the left, reached objects preferably with left arm, and had a right sided brachial and facial hemiparesis.

Initial blood analysis:
- Leukocytosis (18700 cells/mm3)
- C-reactive protein 18.3 mg/Dl

Cerebrospinal fluid (CSF): Normal cytochemical evaluation (8 cells, proteinorachy 20.7mg/dL, glycorachy 52mg/dL). Sterile.

ENCEPHALITIS?

Acyclovir (30mg/kg/dose) + Ceftriaxone (100mg/kg/day)

EEG: Normal

Brain and spinal MRI: T2-hyperintense intramedullary lesion, extending from C2-C3 until D9, involving preferably the posterior columns. Adenovirus DNA in respiratory secretions (PCR)

LONGITUDINALLY EXTENSIVE MYELITIS DUE TO ADENOVIRUS INFECTION

Intravenous methyl-prednisolone, 5 days

Complete recovery.

ETIOLOGIES STUDIED AND EXCLUDED

Trauma, Intoxication
No history of trauma
No history. Negative urine drug screening
Sterile for bacteria

Polymerase chain reaction and serologies:
Human Herpesviruses, Enterovirus, Arbovirus, Influenza viruses A/B, Bocavirus, Coronavirus, Metapneumovirus A/B, Parainfluenza 1 2 3 4, Rhinovirus, RSV

Borrelia burgdorferi, Bartonella sp, M. pneumoniae

Adenovirus– specific antigen in stools
Borderline oligoclonal bands in CSF


Vitamin B12, Copper and Biotinidase deficiencies

Considered unlikely (continuity of the lesion and absence of brain lesions)

COMMENTARIES

Acute tranverse myelitis (TM), rare in childhood, can be caused by various disorders including trauma, space occupying lesions, vascular malformations, infarction, autoimmunity and infections. In parainfectious TM, 20 to 40% of patients have preceding or concurrent viral infection. The association of adenovirus infection and transverse myelitis is extremely rare with only few cases described in literature. Most adenoviral diseases are self-limiting although severe and fatal infections may occur. In parainfectious cases of TM, prompt diagnosis and early onset of steroid therapy is associated with better outcome.

34th Annual Meeting of The European Society for Paediatric Infectious Diseases, 2016 Brighton, UK