A case of Mycoplasma Encephalitis

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Introduction

M.pneumonia is a **common** cause of respiratory tract infections and can also lead to a wide range of pulmonary and extra-pulmonary manifestations. Neurological manifestations occur in approximately 0.1 percent of patients with *M.pneumonia* and most commonly affect children. We describe a case of mycoplasma encephalitis in a child with lower respiratory tract infection.

Case

A 10-year-old boy presented with one week history of being general unwell and fever. The day before admission, he experienced severe lethargy, fatigue and he was unable to get out of the bed. On the day of admission he developed disorientation and confusion. There was no history of photophobia, neck stiffness or seizures.

Past history includes a vocal cord palsy needing tracheostomy which was reversed four years ago.

On examination his GCS was 14/15, his speech was incoherent and he appeared confused. A detailed neurological examination was normal apart from inability to walk due to lethargy and fatigue.

Management

Investigations (see table)

Chest x-ray showed left upper and lower zone consolidation.

EEG was suggestive of encephalopathy, CT and MRI brain was normal.

Blood culture was negative. Serum mycoplasma titre was high. His sputum PCR was positive for mycoplasma.

CSF showed mild pleocytosis, culture, viral PCR and mycoplasma PCR were negative.

CXR

Treatment

He was initially treated with IV Ceftriaxone, Aciclovir and Clarithromycin.

Once the mycoplasma was confirmed, ceftriaxone and acyclovir were stopped. He started improving by day 4 of admission and did not have any further episodes of confusion. He went on to complete a 10 day course of IV clarithromycin and recovered completely.

Discussion

M.pneumonia associated central nervous system complications are rare but can cause significant morbidity and mortality if not treated promptly.

Extrapulmonary complications of

M.Pneumoniae include encephalitis, optic neuritis, acye psychosis, cranial nerve palsies, aseptic meningitis and it has also been implicated in immune mediated neurological diseases such as acute demyelinating encephalomyelitis, Guillian-Barre syndrome and transverse myelitis. The pathogenesis of *M. pneumonia* causing encephalitis is still relatively unclear, and likely to be an immune mediated response.

M.Pneumoniae accounts for at least 7% of cases of acute childhood encephalitis. Neurological sequelae occur in around 50% of cases.

Conclusion

It is important to consider mycoplasma in children presenting with chest symptoms and encephalopathy.

CSF	
Cell count	Wcc 14, 10% polymorphs, 10% lymphocytes, 80% degenerate cells
Glucose	3.2 mmol/L
Protein	0.78 g/L (0.1 – 0.45)
Mycoplasma PCR	Negative
HSV type 2 DNA	NOT Detected by PCR
Varicella zoster DNA	NOT Detected by PCR
Enterovirus RNA	NOT Detected by PCR
Parechovirus RNA	NOT Detected by PCR
Human Herpesvirus 6 DNA	Not Detected by PCR
Human Herpesvirus 7 DNA	Not Detected by PCR
Blood	
Mycoplasma CFT titre	>64
Mycoplasma pneumonia agglutination	Positive
Culture	No growth
Sputum	
Mycoplasma PCR	Positive

References:

1. A Bitnun et al.Acute childhood encephalitis and Mycoplasma pneumoniae, Clin Inf Dis, Vol 32 (12), 2001; 1674-1684