

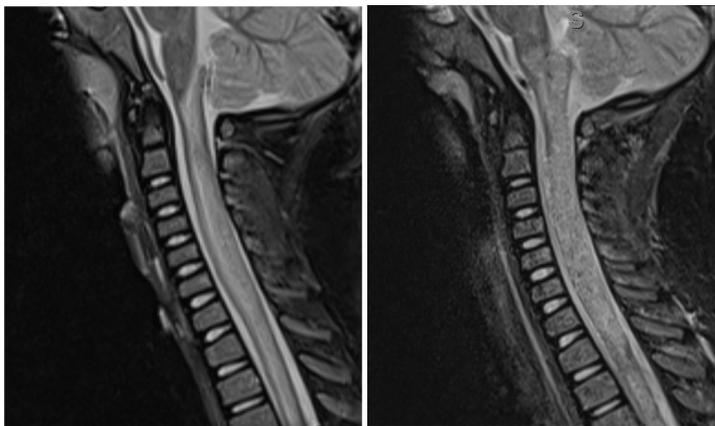
Introduction

- Transverse Myelitis (TM) is a disorder characterized by spinal cord inflammation, typically due to infectious or immune system disorders.
- This case report describes a child diagnosed with TM associated with SARS-CoV-2 infection and her subsequent rehabilitation.

Case Description

- 3-year-old female with no significant past medical history presented to the emergency department with acute-onset progressively worsening weakness in all four extremities found to be positive for the SARS-CoV-2 virus.
- Diagnostic workup included CSF with increased protein and WBCs, MRI demonstrating spinal cord edema and non-compressive myelopathy, consistent with TM.
- Treatment course, showed no significant improvement in her extremity weakness, and she remained ventilator-dependent.

MRI Results



Day of Admission

Day 5 of Admission

Rehabilitation Considerations and Management in a Pediatric Patient with Acute Transverse Myelitis Associated with COVID-19

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Transverse Myelitis

Due to viral infection, autoimmune, or idiopathic

Clinical
• Transverse level of sensory impairment
• Paraplegia
• Autonomic dysfunction

| **Diagnosis** |
| • MRI to exclude compressive lesion |
| • CSF shows lymphocytosis & elevated protein |
| **Management** |
| • High dose intravenous steroids |

Discussion

- There are only a few known cases of TM resulting from the SARS-CoV-2 virus, most of which are in adults.
- Symptoms of transverse myelitis developed in the absence of respiratory symptoms and were associated with a prolonged recovery despite aggressive immunomodulatory therapy.
- In the context of a global pandemic, COVID-19 should be considered within the differential diagnosis of patients with acute neurological decline, even in the absence of typical respiratory symptoms.



Treatment Course

- High-dose steroids, IVIG, Rituximab
- Plasmapheresis: 10 sessions x2
- Intensive rehab program with PT, OT, and Speech Therapy

Rehabilitation Considerations

- Respiratory therapy
- Spasticity management – splints, stretching
- Bladder and bowel regimen
- Skin health – avoid pressure sores, tilt-in-space
- Mobility and equipment needs
- Bracing: TLSO and AFOs
- Neuropathic pain
- Autonomic dysfunction
- Psychological and emotional impact
- Family training and discharge planning
 - Proper bathing technique, skin checks
 - G-tube and tracheostomy tube management
- Reward system in pediatric patients
- Education and social reintegration



References

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