Guillain-Barré Syndrome with Acute Disseminated Encephalomyelitis in a Pediatric Patient: A Case Report

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Introduction

Guillain-Barré Syndrome (GBS) is an acute polyneuropathy marked by rapidly progressive muscle weakness and paralysis, often triggered by infection. Acute Disseminated encephalomyelitis can co-occur, complicating diagnosis and treatment. This report presents a paediatric case of GBS with acute demyelinating encephalopathy, emphasizing comprehensive care.

Case Presentation

A 12-year-old Indian girl, presented with a one-week history of altered mental status, hallucinations, fever, reduced oral intake, vomiting, and loose stools. Her condition worsened, leading to respiratory distress and intubation. Pre-intubation Glasgow Coma Scale (GCS) was E3V5M6 with power 0/5 bilateral lower limb and absence of knee jerks. Meanwhile upper limb motor power was 2/5 and weak biceps reflex. Laboratory findings showed elevated TWC 13.4, platelets 114, and high creatine kinase levels, indicating rhabdomyolysis. CECT brain imaging revealed a right thalamic hypodense lesion, suggesting acute infarct or acute disseminated encephalomyelitis (ADEM). Blood cultures were positive for Streptococcus pyogenes, and CSF analysis indicated high protein levels without bacterial growth. Treatment included intravenous penicillin for streptococcal bacteraemia and a 5-day course of intravenous immunoglobulin (IVIG).

Discussion

The GBS with concurrent acute demyelinating encephalopathy in a paediatric patient is uncommon and rare occurrence. Rapid respiratory decline required intubation and ventilation. Neurological symptoms, such as hallucinations, broadened the differential diagnosis, necessitating extensive infectious and inflammatory work-up. Early recognition and treatment with IVIG were critical. Streptococcal bacteraemia necessitated comprehensive antimicrobial therapy. MRI was essential to differentiate peripheral from central nervous system involvement. Collaboration between various specialties was vital for managing this complex presentation.

Conclusion

This case emphasizes the diagnostic and therapeutic challenges of GBS complicated by acute demyelinating encephalopathy. Early intervention, comprehensive work-up, and a multidisciplinary care approach are essential for improving patient outcomes in complex cases.

References

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