A Pediatric Presentation of Guillain-Barré Syndrome Mimicking Refractory Migraines

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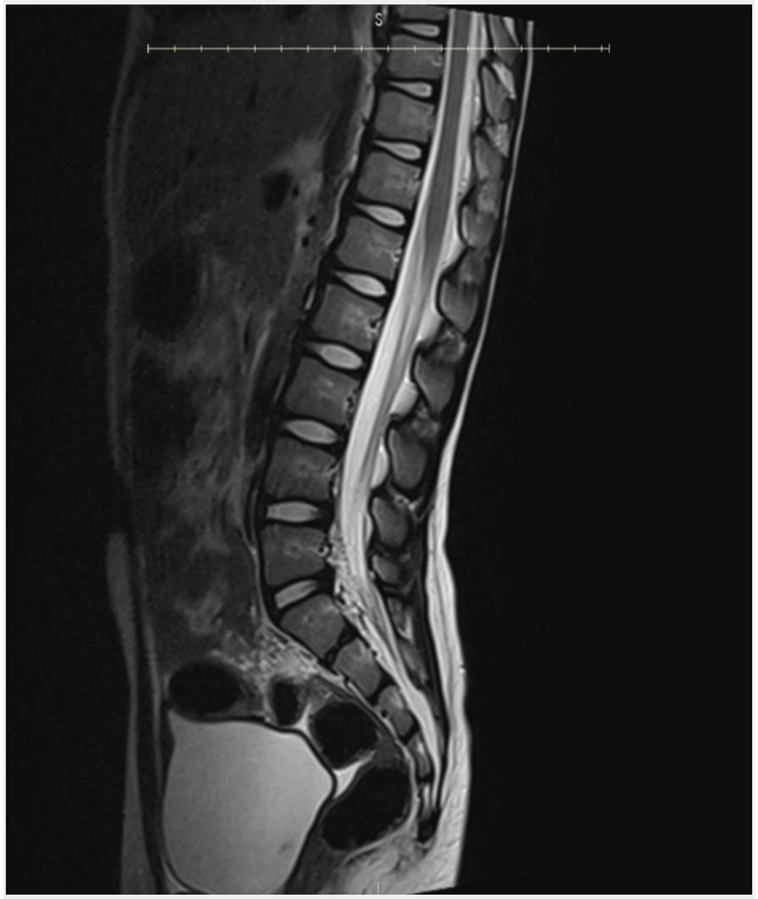
Introduction:

- Guillain-Barré syndrome (GBS) is an acute autoimmune polyneuropathy that typically presents with progressive weakness, gait disturbances, and areflexia.
- Its presentation in pediatric patients can be variable, leading to delays or challenges with diagnosis.
- This case follows a 7-year-old boy initially diagnosed with migraines due to recurrent headaches and vomiting with unremarkable CT results.
- His condition progressed to ataxia and left-sided weakness, ultimately leading to admission and diagnosis of GBS.

Patient Description:

- A previously healthy 7-year-old boy presented to the emergency department (ED) for the third time in three days due to persistent headaches that have been ongoing for the past week, unresponsive to acetaminophen and ibuprofen.
- The headaches were accompanied by worsening dizziness and vomiting and often woke him up in the middle of the night.
- The patient's physician saw him four days before and prescribed rizatriptan for migraine.
- Headaches continued to worsen, and the patient came to the ED. Non-contrast computed tomography (CT) of the head was unremarkable.
- On the third ED visit, however, the patient developed worsening ataxic gait with a new left-leaning walk, left leg weakness, and overall poor coordination.
- Patient was admitted for subsequent MRI of the brain and entire spine as well as lumbar puncture. MRI shown in the Figure.

Figure. MRI revealed diffuse enhancement of his cauda equina, lower nerves of the spinal cord, suggestive of an inflammatory or demyelinating process.



Intervention:

- A lumbar puncture demonstrated an elevated cerebrospinal fluid (CSF) protein of 273 mg/dL (normal 15-60), increased IgG levels, and positive oligoclonal bands.
- These findings were consistent with a diagnosis of Guillain-Barré syndrome.
- The patient began a course of intravenous immunoglobulin (IVIG) therapy for this and was discharged to a rehab facility nearly a week later.
- He required two months of continuous rehabilitation but has made essentially a full recovery and once again has full leg strength.

Conclusions:

- This case outlines difficulties in diagnosing childhood GBS in children.
- Although the diagnosis of GBS is relatively easy in patients with typical clinical and electrophysiological findings, early diagnosis can be difficult in children with atypical findings such as initial upper limb weakness, neck stiffness, headache, isolated ataxia or pyramidal signs.
- These misleading features require spinal ± brain imaging investigations, electroneuromyogram, and CSF analysis.
- Early recognition of atypical presentations of childhood GBS warrants appropriate management.