AAP Case Report

Author Information:
Birney, B., MD
Yasin, M. MS4
Hong, D., MS4
Mammodov, O. DO
Faridi, N. DO
Tan P., MD

Topic
Atypical Guillain-Barre Syndrome

Case Diagnosis
Atypical Guillain-Barre Syndrome with Residual Hemiparesis in Pediatric Patient

Case Description

8-year-old female with no significant past medical history presented with lower extremity weakness upon waking in the morning that progressed from cramping the night prior. Upon admission her symptoms started with lower extremity weakness, progressed to postural instability and ultimately upper extremities weakness. Her mother denied preceding illness, fevers, and respiratory distress. On exam, she exhibited bilateral upper and lower extremity weakness with right sided predilection and areflexia. Lumbar puncture analysis showed no abnormal findings. MRI spine was non-conclusive for acute processes. However, EMG revealed absent F waves, and with her symptomology she was diagnosed Guillain-Barre Syndrome (GBS). Upon treatment with four-doses of IV immunoglobulin (IVIG), her weakness initially improved and was transferred to inpatient rehab. At inpatient rehab, she regained her reflexes and gross motor strength on the left drastically more than the right. Upon discharge home, the patient had residual right-sided weakness, albeit she was ambulating with a rolling walker without assistance.

Discussions

Guillain-Barre Syndrome (GBS) is the most common cause of acute flaccid paralysis in the world. The overall incidence is 0.6-4 per 100000 each year in populations younger than 18 years old. The traditional portrayal of GBS is that of demyelinating neuropathy with ascending weakness, typically beginning in the lower extremities and progressively involves the trunk, the upper limbs with symmetrical weakness. Conventionally, the recovery from GBS is bilateral in pattern and opposite from onset in a cranial to caudal direction. In this case report we highlight our pediatric patient that regained full recovery of left sided strength with residual right sided weakness.

Conclusion

Guillain-Barre Syndrome (GBS) is the most common cause of acute flaccid paralysis in the world. The overall incidence is 0.6-4 per 100000 each year in populations younger than 18 years old. The traditional portrayal of GBS is that of demyelinating neuropathy with ascending weakness, typically beginning in the lower extremities and progressively involves the trunk, the upper limbs with symmetrical weakness. Conventionally, the recovery from GBS is bilateral in pattern and opposite from onset in a cranial to caudal direction. In this case report we highlight our pediatric patient that regained full recovery of left sided strength with residual right sided weakness.

References:

Abd-Allah, S. A., Jansen, P. W., Ashwal, S., & Perkin, R. M. (1997). Intravenous immunoglobulin as therapy for pediatric guillain-barré syndrome. *Journal of Child Neurology*, *12*(6), 376–380.

Asiri, S., Altwaijri, W., Ba-Armah, D., Al Rumayyan, A., Alrifai, M., Salam, M., & Almutairi, A. (2019). prevalence and outcomes of Guillain-Barre; syndrome among pediatrics in Saudi Arabia: A 10-year retrospective study. *Neuropsychiatric Disease and Treatment*, *Volume 15*, 627–635.

Jung, J. H., Oh, E. H., Shin, J.-H., Kim, D.-S., Choi, S.-Y., Choi, K.-D., & Choi, J.-H. (2018). Atypical clinical manifestations of Miller Fisher syndrome. *Neurological Sciences*, *40*(1), 67–73.

Roodbol, J., de Wit, M.-C. Y., van den Berg, B., Kahlmann, V., Drenthen, J., Catsman-Berrevoets, C. E., & Jacobs, B. C. (2017). Diagnosis of guillain–barré syndrome in children and validation of the brighton criteria. *Journal of Neurology*, *264*(5), 856–861.

Wu X;Shen D;Li T;Zhang B;Li C;Mao M;Zhao J;Liu K;Zhang HL; (n.d.). *Distinct clinical characteristics of pediatric guillain-barré syndrome: A comparative study between children and adults in Northeast China*. PloS one.

Image: https://doi.org/10.1038/s41582-019-0250-9