

# Isolated tachycardia in atypical axonal variant of Guillain-Barre syndrome (GBS).

NYC HEALTH + HOSPITALS

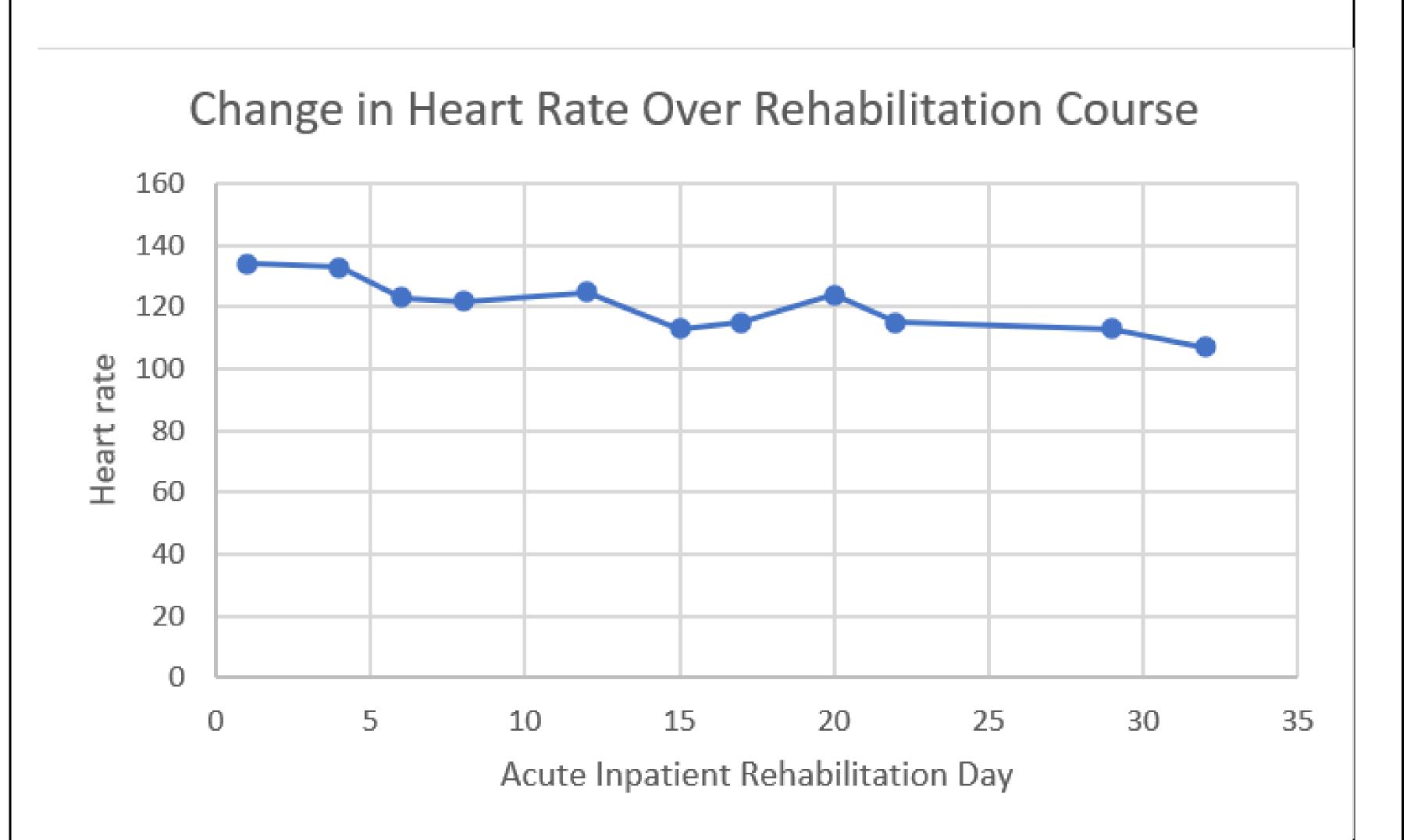
Metropolitan

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## CASE PRESENTATION

36 y/o female with history of nausea, following vomiting, diarrhea seafood ingestion 2 months ago presented with diffuse muscle aches, ascending bilateral weakness over 5-6 weeks. LP showed elevated protein, no WBCs. Brain MRI normal. EMG/NCS revealed severe acute axonal sensorimotor polyneuropathy. Sural nerve biopsy showed severe, active axonal degeneration. The patient was treated empirically for Guillain-Barre syndrome (GBS) with IVIg and high dose pulse steroids. Physical exam on admission to acute inpatient rehab (AIR) demonstrated bilateral wrist drop and foot drop with mild lower extremity proximal weakness and isolated tachycardia—pulse 134, BP 120/79, temperature and respiratory rate normal. The patient was not orthostatic. Bowel and bladder functions were normal. EKG showed sinus tachycardia. Cardiac echo was normal, CT PE negative. Low dose metoprolol (12.5mg BID) was started for tachycardia on day 6 of admission which was then increased to 25mg BID on day 12. The pulse gradually came down to 114 on day fourteen of AIR. By day 20 metoprolol dose was increased to 50mg BID. fluids Intravenous needed were intermittently for dehydration secondary to difficulty of the patient to hold a cup to drink. PO intake improved with progressing muscle strength and use of dynamic extension hand splint. Patient discharged day 32 of AIR with HR 107, BP 110/73

## IMAGES



**Table 1**. Change in heart rate over rehabilitation course. On Day 6, metoprolol 12.5mg BID was initiated. On Day 12, metoprolol dose was increased to 25mg BID. On Day 20, metoprolol dose was increased to 50mg BID.

### DISCUSSION

Isolated sinus tachycardia is the most common autonomic dysfunction in the demyelinating variety of GBS. We have not seen this reported in axonal variant GBS. Our workup for tachycardia was negative except elevated normetanephrine (303); metanephrine level normal. Isolated tachycardia in this case, or perhaps more generally in GBS, may be the body's response to the increased metabolic demand of nerve regrowth.

## CONCLUSIONS

Isolated sinus tachycardia is the most common presentations of autonomic dysfunction in patients with demyelinating forms of GBS. We present the first case to our knowledge with axonal variant of GBS with autonomic dysfunction.

#### BIBLIOGRAPHY

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