

Rehabilitation of an adult male with neurosarcoidosis and Chiari malformation type 1: A Case Study

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Introduction

- Sarcoidosis is a chronic granulomatous disease that can affect many organ systems. In 5-10% of all sarcoidosis patients, there is symptomatic involvement of the nervous system—i.e., neurosarcoidosis (1)
- Diagnostic criteria for neurosarcoidosis take into account biopsy results, CSF findings, imaging, and exclusion of other diseases (1-3).
- There are only a few case reports regarding the outcomes of acute rehabilitation for patients with neurosarcoidosis. Given the highly variable presentation of neurosarcoidosis, additional examples are helpful to understand the breadth of the disease.

Methods

- Case Study of a 40-year-old male with history of Chiari malformation type 1 with syrinx, coronary artery disease, type 2 diabetes mellitus, fatty liver disease, anxiety and depression who presented to inpatient rehabilitation after new diagnosis of neurosarcoidosis.
- Tracked Quality Improvements measures (QI's) to document the functional improvement in inpatient rehabilitation.

Results.

- On admission to inpatient rehabilitation, He was classified as a C1 American Spinal Injury Association (ASIA) D with right sided motor impairment in C6-T1 distribution with scattered bilateral sensory changes in all extremities and 4/5 RUE strength. Functionally, the patient required two-person maximum assistance for functional transfers and sitting edge of bed, moderate assistance for bed mobility, minimal assistance for sit-stand transfers and contact guard assistance with grooming and hygiene.
- Two months after the patient's rehabilitation stay, he was ambulating independently with a cane and was performing all activities of daily living independently.

Discussion

- This case adds to the body of evidence that patients with neurosarcoidosis can have rapid improvement in daily functioning with a comprehensive inpatient rehabilitation plan and systemic therapy.

An adult male with Chiari malformation Type 1 who was diagnosed with neurosarcoidosis recovered his functional independence with acute inpatient rehabilitation.

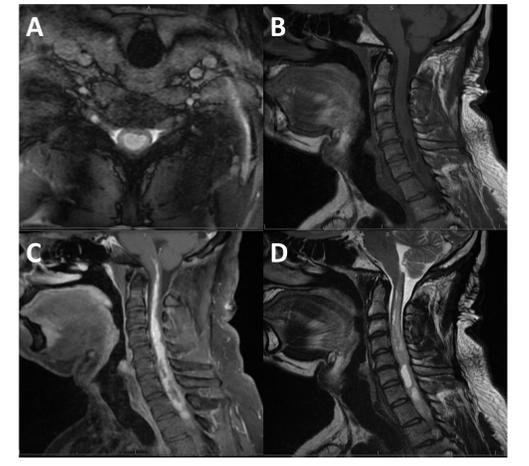


Figure 1: Cervical MRI with and without contrast demonstrating a large syrinx in the cervical and upper thoracic cord with nodular regions of enhancement and septations. Panel A: Axial 3D Cosmic at C7 level. B: Sagittal T1 FSE (Fast Spin Echo). C: Sagittal T1 FLEX + Gadolinium. D: Sagittal T2 FSE

	Rehabilitation Day 1 Initial	Rehabilitation Day 9 Midpoint	Rehabilitation Day 18 Acute Rehabilitation Discharge
Self-Care			
Eating	6	6	6
Grooming	4	5	5
Bathing	2	5	5
Dressing-Upper	3	5	5
Dressing-Lower	2	5	5
Toileting	1	1	6
Transfers			
Rolling left and right	3	6	6
Sit to lying	3	6	6
Lying to sitting on edge of bed	3	6	6
Sit to Stand	3	4	4
Bed, Chair, Wheelchair transfers	3	4	6
Toilet	1	3	6
Tub, Shower	3	4	4
Locomotion			
Walk (10 Feet)	1	1	4
Walk (50 Feet with 2 turns)	NA	1	1
Walk (150 Feet)	NA	NA	NA
Walk (10 feet uneven surface)	NA	NA	4
Wheelchair (50 feet with 2 turns)	4	5	6
Wheelchair (150 feet)	4	5	6
Stairs (4 steps)	NA	NA	4

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The authors of this study have nothing to disclose.



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