"A Case Study: How to Manage Pain in Neurosarcoidosis Patients"



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BACKGROUND

- Neurosarcoidosis is a rare manifestation of sarcoidosis, an inflammatory disease characterized by the formation of granulomas—clusters of immune cells—in various organs.
- These granulomas primarily affect the central nervous system (CNS), causing symptoms such as confusion, limb weakness, and bowel and bladder dysfunction. Patients can also experience pain, headaches, and fatigue, which can be debilitating.
- This condition is found in approximately 5% to 15% of patients with sarcoidosis and can lead to significant morbidity.

INTRODUCTION

- A 26-year-old female with no past medical history initially presented with progressive right-sided weakness and painful paresthesias in both extremities and a V2 - V3 facial distribution.
- An MRI of the cervical spine revealed a persistently enhancing lesion at the C1-2 level, with associated longitudinally extensive transverse myelitis.
- The diagnosis was confirmed with endobronchial ultrasound biopsy (EBUS), which showed granulomatous inflammation. The patient was treated with high-dose corticosteroids and infliximab for the neurosarcoidosis, however, she continued to experience diffuse neuropathic pain.

IMAGING



TREATMENT COURSE

 To address these persistent symptoms despite the empiric treatment of the neurosarcoidosis, a multidisciplinary approach was implemented. This included physical therapy, tizanidine, lyrica, baclofen, venlafaxine, and tramadol, with improvement of her symptoms. The addition of methotrexate also helped achieve better control of neurosarcoidosis manifestations over time.

DISCUSSION

- Despite standard treatments like corticosteroids and infliximab, patients with neurosarcoidosis often experience persistent neuropathic pain, highlighting the limitations of conventional therapies in managing pain.
- A comprehensive treatment plan, combining disease-modifying agents (e.g., methotrexate) with pharmacological pain management (e.g., gabapentinoids, tizanidine) and physical therapy, is essential for better symptom control.
- Persistent symptoms require regular reassessment and a tailored approach to optimize outcomes.

CONCLUSION

 Neurosarcoidosis, though rare, presents with diverse neurological symptoms depending on the affected areas of the nervous system, including neuropathic pain. Effective management of neurosarcoidosis requires an understanding of its varied manifestations, targeted therapies, and consideration of appropriate pain management to improve patients' quality of life.

REFERENCES

- · Letitia Pirau; Forshing Lui, Neurosarcoidosis, 2019).
- (University of Texas Health Science Center at Houston, Neurosarcoidosis Symptoms).