

CASE REPORT: SYRINGOMYELIA EVALUATION AND MANAGEMENT

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Background:

- Syringomyelia is a cerebrospinal fluid (CSF) filled cavity in the spinal cord that can lead to a cystic structure called a syrinx.¹
- Syringomyelia is commonly associated with **Chiari malformation type 1 (CM-1)**, or a consequence of **trauma**, inflammation, or space-occupying lesions within the spinal cord.¹

Objective:

Review common etiologies and management options for patients with syringomyelia.

Methods:

This case report consists of literature review alongside a clinical case. Patient informed consent was obtained prior to the case study.

Case Diagnosis:

Syringomyelia of the Cervical and Thoracic spine

Case Description:

- A previously asymptomatic, healthy 27-year-old female with no prior imaging presented to the pain management clinic with neck pain following a motor vehicle accident.
- The patient did not have any presenting motor or sensory deficits.
- Pain persistent despite adherence to physical therapy
- MRI of her Cervical spine showed a **syrinx extending from C2 to T1** (Figure 1, Figure 2).
- MRI of her Cervical spine extension of the cerebellar tonsils into the spinal canal, supporting the diagnosis of a **Chiari Malformation type 1 (CM-1) (Figure 1)**.
- The patient was **managed conservatively** with physical therapy, NSAIDs, physician-directed home exercises, and cognitive behavioral therapy.
- The patient had **significant (over 50%) alleviation** of her symptoms at 1 month follow-up visit.

Key Takeaways

- Syringomyelia is a common finding in patients with CM-1 and may be an incidental finding
- It can be challenging to discern this finding in the setting of trauma
- MRI and CT Myelography are the gold standard for diagnosis²
- Conservative management can play a crucial role in improving patients' functional outcomes
- More data is necessary to assess the long-term functional outcomes of patients that undergo surgical versus conservative management



Figure 1. Sagittal Cervical Spine T2 MRI showing syrinx hyperintensity from C2-T1

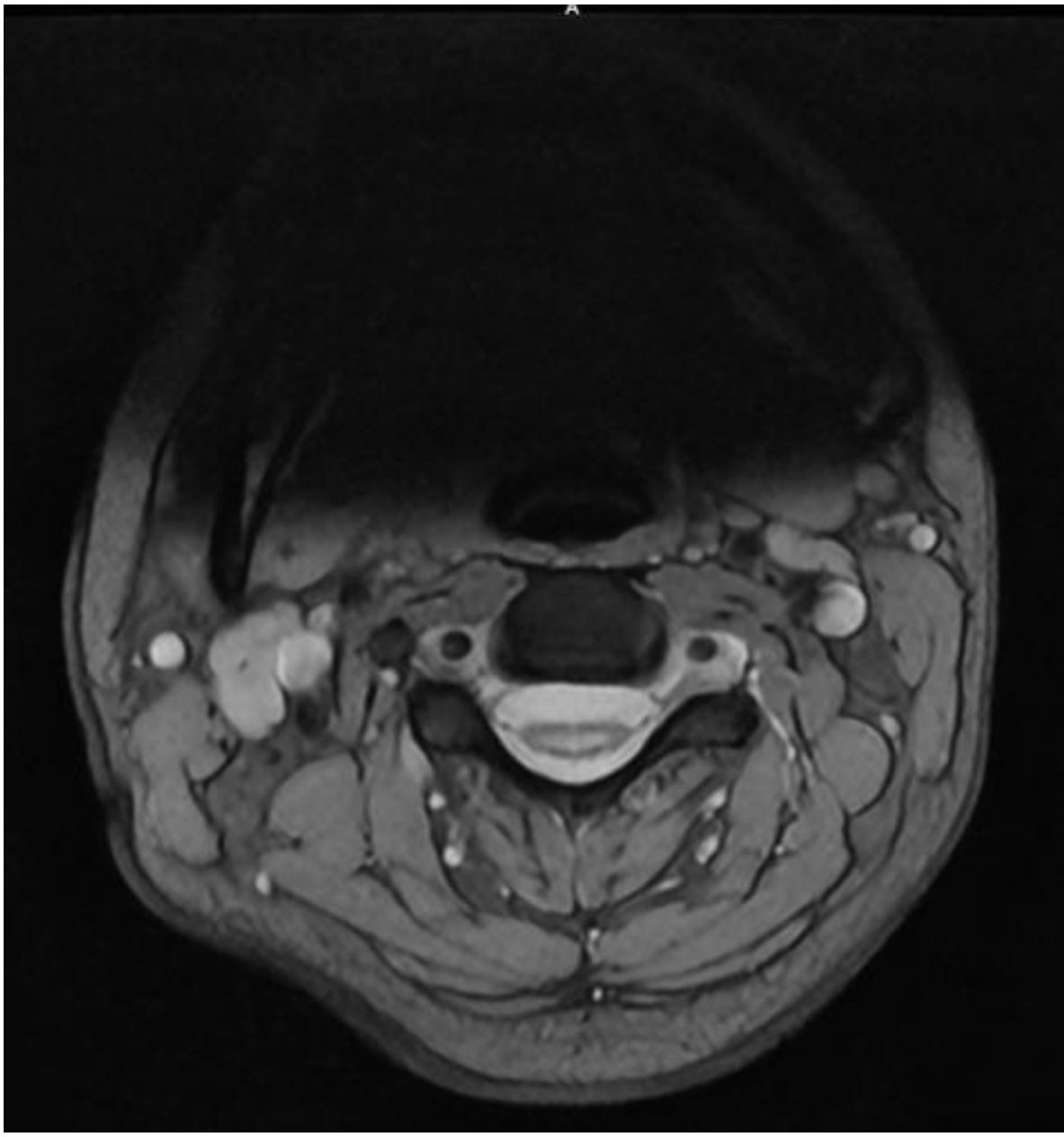


Figure 2. Axial Cervical Spine T2 MRI showing central cord syrinx hyperintensity

Discussion:

- 65% of patients with CM-1** are diagnosed with Syringomyelia.²
- 22.7% of Syringomyelia cases are asymptomatic.**²
- Common complaints include sensory deficits, weakness, neuropathic pain, spasticity, autonomic bladder dysfunction, and impaired ambulation.¹
- MRI with and without contrast or CT Myelography** are imaging modalities of choice.²
- Conservative measures, including **physical therapy, cognitive behavioral therapy, and avoidance of activities that increase intracranial venous pressure** have been noted to lead to substantial functional improvement in the management of patients with Syringomyelia.³

References:

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