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Management of a Cervico-Dorsal Syringomyelia with Syringo-Subarachnoid Shunts: A Case Report

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Title: Management of a Cervico-Dorsal Syringomyelia with Syringo-Subarachnoid Shunts: A Case Report

Background: Syringomyelia is a rare condition where fluid-filled cavities develop in the spinal cord, causing motor, sensory, and autonomic disturbances. This report discusses the surgical management of a 52-year-old female with extensive syringomyelia from C2 to D7.

Research Question: Can syringo-subarachnoid shunting alleviate neurological deficits in patients with extensive cervico-dorsal syringomyelia?

Design: This is a single-patient case report examining preoperative presentation, surgical intervention, and postoperative outcomes.

Methods: The patient, with a history of hypertension, presented with neck pain, weakness, tingling, and numbness in both upper and lower limbs. Neurological exam revealed motor deficits and sensory changes, with hyperreflexia and positive Hoffmann and Babinski signs. MRI showed diffuse syringomyelia from C2 to D7. The patient underwent C3-C4 laminectomy, and two syringo-subarachnoid shunts were inserted at the cervical and D4 levels.

Results: Postoperatively, the patient showed improved motor strength and mild sensory relief. The right upper limb experienced increased tingling post-surgery but improved with treatment. A follow-up MRI showed significant reduction in syrinx size.

Discussion: Surgical management of extensive syringomyelia is complex due to spinal cord dynamics and fluid flow. Syringo-subarachnoid shunting has shown promise but has uncertain long-term outcomes due to potential complications like shunt failure. The significant decrease in syrinx size postoperatively highlights the effectiveness of this intervention. Ongoing monitoring is essential to assess the durability of improvements.. Long-term studies are also needed to evaluate clinical improvements and syrinx morphology changes.

Fig. 1

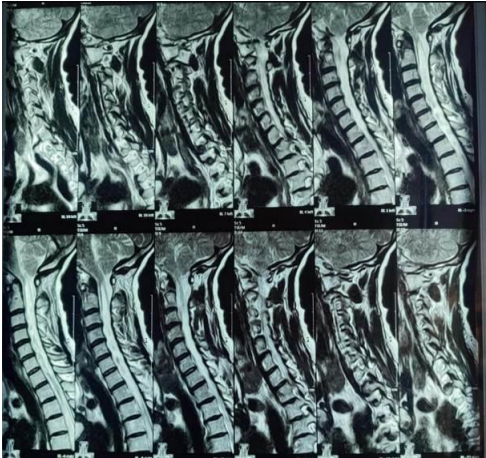


Fig. 2



Fig. 3



Fig. 4

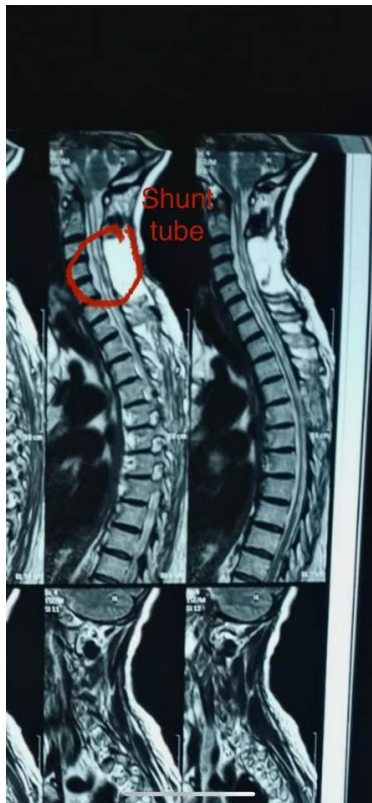


Fig. 5



Fig. 6

