

# Case Report of a very late complication after Spinal Cord Injury: Post-traumatic Syringomyelia

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## Case Description

This is the case of a 59 year-old male with history of C6 level complete tetraplegia after an injury at age 15. Patient had no surgical intervention at that time. Due to his adequate upper limb function, he had remained modified independent for most of his activities. Over the last 6 months, he noted progressively worsening numbness, weakness, and pain of upper extremities. These new neurological deficits had been compromising his independence as he depended heavily on his upper limbs.

Evaluation with a Magnetic Resonance Imaging (MRI) showed findings of a syrinx in the spinal cord starting on C3 extending down as a confluent cyst up to T11.

## Treatment

Patient underwent C2-T2 laminectomy and C2-C3 fusion with tethered cord release. He was cleared by Neurosurgery for inpatient rehabilitation while adhering to both spine and untethering/duraplasty precautions.

## Discussion

Post-traumatic Syringomyelia is a fluid-filled cyst within the spinal cord that may extend rostrally and/or caudally, causing myelopathy. Inflammation and swelling after a spinal cord injury can lead to adhesion of the spinal cord to the meningeal lining or spinal cord tethering. This may cause tension, ischemia, increased intradural pressures, and altered cerebral spinal fluid flow dynamics to the spinal cord and contribute to the formation of the cyst. Progressive post-traumatic syringomyelia is clinically serious complication of spinal cord injury. It can result in slow, progressive, and potentially devastating loss of sensory or motor function

This reported case describes a patient whom symptomatic post-traumatic syringomyelia began to develop 44 years after injury. It has been described as early as three months after a spinal cord injury and as late as 30 years post injury. No cases were found reporting post-traumatic syringomyelia 40 years post injury

## Conclusion

As our Spinal Cord Injury population's longevity continues to increase, chronic complications will tend to be more prevalent. In patients with a Spinal Cord injury, progressive neurological deficits should alert of the possibility of post-traumatic syringomyelia. Prompt evaluation and subsequent surgical intervention in these patients may help avoid permanent deficit and, in some cases, reverse the clinical deterioration.

## References

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