

An Uncommon Case of Post-Traumatic Syringobulbia: A Case Report

Izzat Zuhilmi Abd Rahman^{1*}, Salmah Anim Abu Hassan²

¹ Rehabilitation Unit,
Sultan Ahmad Shah Medical Centre @ IIUM,
Kuantan, Pahang

² Department of Orthopaedic,
Traumatology and Rehabilitation,
Kulliyah of Medicine, International Islamic
University Malaysia (IIUM), Kuantan, Pahang

*Corresponding author's email:
izzat_zuhilmi@iium.edu.my

DOI: <https://doi.org/10.51200/bjms.vi.3754>

Keywords: *syringomyelia,
syringobulbia, spinal cord injury,
paraplegia*

Background and aim: Syringobulbia is a rare progressive neurological condition characterised by the presence of syrinx or an elongated fluid-filled cavity in the brainstem with multiple possible underlying aetiologies. However, to date, only a few cases of syringobulbia presenting as a late complication of post-traumatic syringomyelia (PTS) have been reported. **Methods:** We present a case of a 26-year-old morbidly obese gentleman with T4 AIS C incomplete spinal cord injury following T7 burst fracture 2 years prior requiring spinal instrumentation. He then experienced implant failure 1 year later, necessitating implant removal. Subsequently, he reported worsening back pain and neurology deterioration over his left upper and lower limb. In addition to that, pain and muscle spasms over the left upper limb extending up to the left side of his neck, face, and head warranted a repeat imaging of the brain and spinal cord. Magnetic resonance imaging (MRI) revealed syringobulbia predominantly affecting the left side of the medulla oblongata with extensive syringomyelia originating from the C1 to T12 vertebral level. Moreover, the old T7 fracture site remained malunited. **Results:** Despite a successful second spinal decompressive surgery and combined rehabilitation, there was no neurological recovery. However, the patient described significant improvement in pain and spasms. **Conclusion:** PTS complicated with syringobulbia, although rare, is one of the causes of the delayed-

onset neurological deterioration in spinal cord injured patients. It might be a diagnostic dilemma as some cases exhibit atypical presentations and mimic the pre-existing neurological deficit. Syrinx formation due to alteration of subarachnoid cerebrospinal fluid (CSF) flow in post-traumatic spinal

deformity might benefit from decompressive surgery, avoiding the need for intradural shunt placement, coupled with medication and physical therapy. Even though there was no neurological recovery, symptomatic alleviation of neuropathic pain and spasm improved quality of life.