

Miracle Recovery After ASIA B Traumatic Cervical Cord Injury

¹Zarullail NH, ¹Johari J, ¹Yusof MI

¹Department of Orthopaedic and Traumatology, School of Medical Sciences, Universiti Sains Malaysia(USM), Kubang Kerian

INTRODUCTION:

Spinal cord being a part of central nervous system is refractory to regeneration. Neurological recovery after spinal cord injury remains unpredictable (1). We report a case of traumatic cervical cord injury with significant neurological improvement.

CASE REPORT:

The patient is 14-year-old girl who had motor vehicle accident. Examination revealed that she was paraplegic and unable to use her hands with American Spinal Injury Association (ASIA) Grade B spinal cord injury. Computed Tomography (CT) of the cervical spine revealed C6 burst fracture and she was then immediately placed in craniocervical traction. The patient underwent Magnetic Resonance Imaging (MRI) of cervical which revealed burst fracture C6 causing long segment cord edema. She underwent open anterior corpectomy of C6 and fusion from C5 to C7 at day 5 post injury. Post-operatively she was referred to rehabilitation team and neurological status improved to ASIA D but the paraplegia and weakness of hand grip remained the same.

At 3-months follow-up the patient was noted to have significant neurologic recovery with some residual hand grip weakness (ASIA D). Patient had power grading of grade 4 to 5 for bilateral lower limb. Cervical plain radiograph showed acceptable fixation.

Currently, which was at 4-months post injury, patient is able to walk and able to control bowel and bladder function.

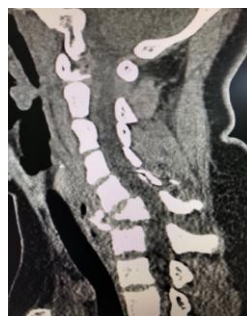


Figure 1: CT scan showed burst fracture of C6 with retropulsion causing spinal canal stenosis



Figure 2: MRI T2WI revealed long segment cord edema from C2 to C6

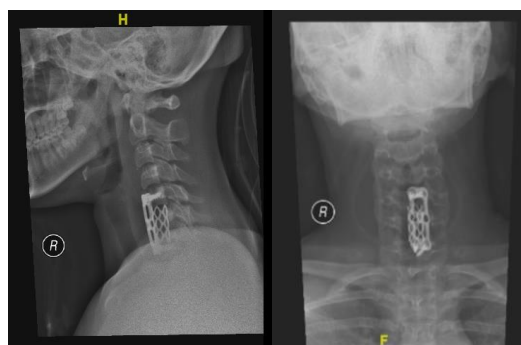


Figure 3: Post-operative radiograph showed acceptable fixation.

DISCUSSIONS AND CONCLUSIONS

Walking recovery is one of the main goals of patients after spinal cord injury (SCI): walking is rated at first place (together with bladder and bowel function) at least by patients with incomplete lesions (2). To date, there is not much cases of recovery from paraplegia to near normal neurologic function after traumatic cervical cord injury. Our patient showed a significant neurological recovery after SCI

ABSTRACT TRUNCATED