

Role of Self Help in traumatic dorsolumbar spinal cord injury: A case report.

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Abstract

Introduction: Post traumatic dorsolumbar fractures with spinal cord injuries are always considered a challenging task for any orthopaedician. The degree of functional impairment and health related quality of life (HRQL) depend upon level and completeness of lesion. Physiotherapy and rehabilitation are the keys to make the patient return back to pre-injury status

Case Report: Two patients of Dorsolumbar spinal injury with almost similar lesion were operated on same day with contrasting outcome.

Conclusion: Role of physiotherapy and rehabilitation cannot be ignored, but a very important aspect of success was self-help.

Keywords: Paraplegia, Spinal Injury, Physiotherapy

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Introduction

Post traumatic dorsolumbar fractures with spinal cord injuries are always considered a challenging task for any orthopaedician. The degree of functional impairment and health related quality of life (HRQL) depend upon level and completeness of lesion. Physiotherapy and rehabilitation are the keys to make the patient return back to pre-injury status [1]. Loss of muscle power due to disuse is a serious detrimental factor that impairs the functional capacity [2]. In spinal cord injury (SCI) patients besides damaging independence and physical function, also include neurogenic bladder and bowel, urinary tract infections, pressure ulcers,

orthostatic hypotension, deep vein thrombosis and depressive disorders [3].

Case Report

Two patients presented to Hamidia Hospital with traumatic compression fractures involving the dorso lumbar junction on the same day, were operated on the same day by same surgeon, discharged on the same day however the recovery and success story is far from similar. Patient A, an 18 year old female, with burst compression # L 1 vertebrae with incomplete paraplegia and bowel and bladder involvement (ASIA Grade A) (Fig1) and Patient B, a 16-year-old female with wedge compression # D 12 vertebrae with paraparesis and intact bowel and bladder (ASIA Grade B) (Fig 2).

Figure 1: Pre-op and Post Op X ray of Patient A

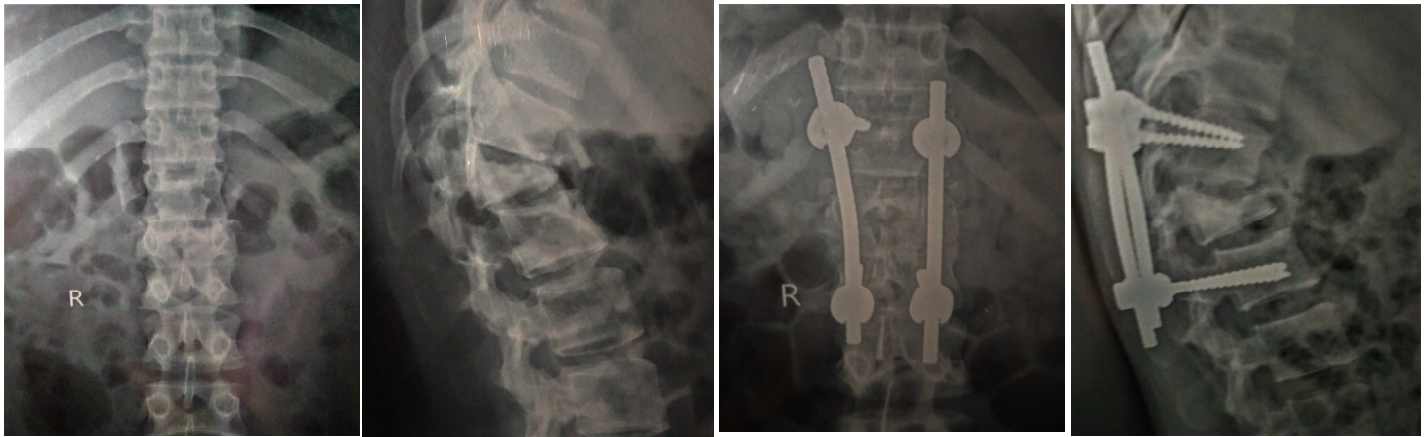
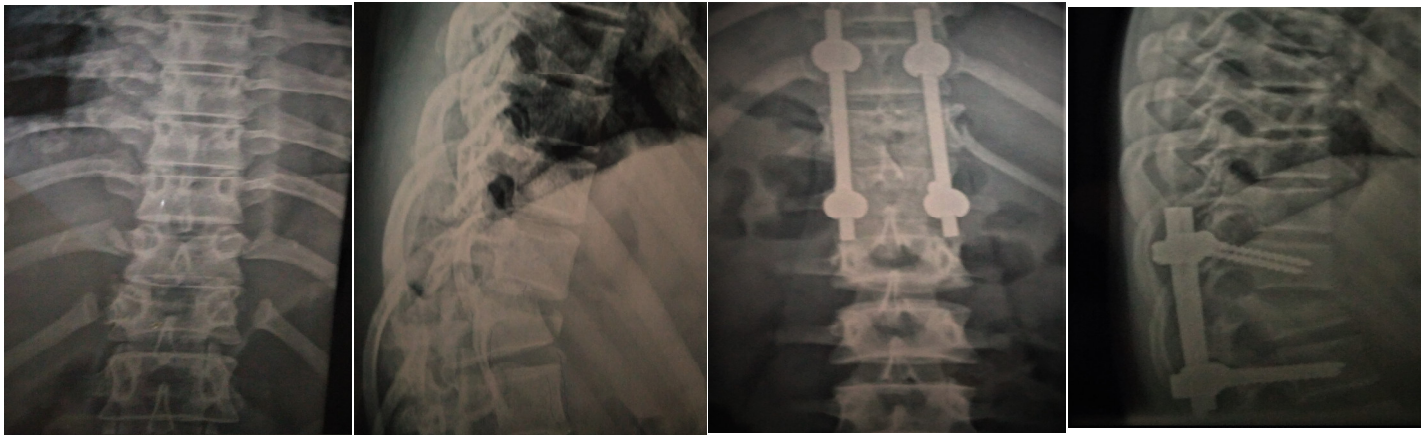


Figure 2: Pre-op and Post Op X ray of Patient B



Both presented with a history of fall, Patient A 13 hours from trauma, while patient B 20 hours. Patients were posted 6 days after admission, treated using polyaxially pedicle screw fixation via posterior midline approach, on principles of indirect decompression using ligamentotaxis, with an uneventful operation [4,5].

Discussion

Often patients with dorsolumbar fractures with spinal cord injury present late to tertiary setups [6]. With little left to amend, the treatment is far from magical. Prognosis being explained goes well before shifting toward or operation theatre. In our case Post operatively both patients were provided Taylor's brace and mobilised with assisted sit ups the next day [7]. Patients were discharged on request 6 days following operative treatment with regular follow ups

every 2 weeks. Taylor's Brace was continued protectively, along with antibiotics, pain killers and methylcobalamine.

Studies on accessibility and a supportive network that act as a motivating factor to participate in rehabilitation following spinal cord injury have been studied [8]. However, our report emphasises on the self-help which patient A clearly had. While initial follow ups both patient A and B reported. Patient B was lost to follow up after 2 visits. Patient A was regular in follow ups and progress gradually made from sit ups to walk with the help of aid to unaided walking over a period of 5 months.

Patient A was on regular visits from a local physiotherapist who provided isometric exercises and progressive weight bearing, followed by gait balancing. At the end of 3 months patient's lower limb powers were

improved to a scale of ASIA C, at the end of 4 months improved to ASIA D. It was not surprising when the patient walked exactly 6 months from the day of surgery with good gait balance. On examination patient had improved to ASIA E with bowel movements periodically every 48 hours and voiding of urine was done with self-CIS. While Patient B returned to follow up at 6 months with ASIA grade B, with involvement of bowel evacuation by manual extraction, still on use of indwelling catheter. Patient had also had multiple depressive episodes, bed sores and recurrent urinary tract infections.

In other studies role of web based physiotherapy has also been evaluated but in both the patients the feasibility of setup had allowed us to call both patients for

follow up [9]. Since both the patients had been subjected to similar operations by same surgeon, with requests for follow up on same time the work to be done further at our end was limited. It was only then left for patient A to realize that the role of self-help had to step in.

Evaluation of return to preinjury status was further analysed in patient A and B [10]. As much to the surprise it added that both patients had accepted the status but patient A had developed self-dependence, skills and psychological strength due to the patient's own help.

Conclusion

Role of physiotherapy and rehabilitation cannot be ignored, but a very important aspect of success story is self-help.

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