LETTER TO THE EDITOR

NEUROLOGICAL RECOVERY IN TRAUMATIC SPINAL CORD INJURY: ROLE OF MULTIDISCIPLINARY SPINAL REHABILITATION IN IMPROVING OUTCOMES

Sami Ullah, Farooq Azam Rathore*

Department of Rehabilitation Medicine, Rehabilitation Hospital, King Fahad Medical City, Riyadh-Saudi Arabia. *Department of Rehabilitation Medicine PNS Shifa Hospital, Karachi-Pakistan

Dear Editor,

We read the article "neurological recovery in traumatic spinal cord injuries after surgical intervention" by Mohammad Naeem Ur Razaq and colleagues with Interest.[1] They have shared their experience of delayed surgical intervention in traumatic Spinal Cord injury (SCI) and concluded that it may produce results comparable to early surgery in term of neurological recovery.

We would like to highlight the role of multi-disciplinary SCI rehabilitation in improving the functional outcomes, quality of life (QOL) and community reintegration in these patients. This is a concept which is either misunderstood, ignored or simply neglected in Pakistan.

Early SCI rehabilitation can enhance motor recovery, improve physical independence,[2] and maximize function[3]. The consequences of neglecting rehabilitation post-SCI are grave and may include complications like pressure ulcers, spasticity, contracture formation, neuropathic pain, reduced mobility and psychosocial complication issues like depression and even suicide.[4,5] These complications result in a poor functional outcome, increase the cost of care and prolonged length of stay in the hospital.[5]

Ideally, SCI rehabilitation begins from intensive care and facilitates SCI patients to achieve their full potential in terms of medical, physical, emotional, recreational, social, vocational, and functional recovery.[6]

The SCI rehabilitation can be provided during the acute, subacute, and chronic phase. SCI Rehabilitation during the acute and subacute phases focus on preventing secondary complications, promoting and enhancing neurologic recovery, maximizing function, and establishing optimal conditions for long-term maintenance of health and function. In the chronic phase, compensatory or assistive approaches are often used.[3] This holistic care is best provided by a multidisciplinary rehabilitation team led by a physiatrist (Rehabilitation Medicine specialist) and includes other team members like a physical therapist, occupational therapists, speech-language pathologists, clinical psychologists, social workers, rehabilitation nurses, orthotist, and social worker. This holistic care is best provided in a specialized SCI centre having above-mentioned rehabilitation team.[7]

Unfortunately, the situation in Pakistan regarding SCI management and rehabilitation is not very encouraging. The tragedy of 2005 earthquake highlighted the inability of the Pakistani healthcare system to cope with hundreds of SCI patients. Many makeshift centres were established in a haste and majority did not have any qualified Rehabilitation Medicine physician as in charge.[8] Patients under Rehabilitation care had reduced rate of complications and better outcomes as compared to that lacking coordinated SCI rehabilitation.[8]

Currently, there is no central trauma or SCI registry in Pakistan and there are no accurate estimates of new SCI patients or those living in the community. There are only two dedicated SCI rehabilitation centres in the whole of the country. One is the Paraplegic centre; Peshawar and the other is the Spinal Rehabilitation Unit of Armed Forces Institute of Rehabilitation Medicine. The SCI centre at National Institute of Rehabilitation Medicine Islamabad, with no physiatrist as staff member, is more of a long-term nursing facility mainly for the female paraplegics of 2005 earthquake who have been abandoned by their families.

There is a need to highlight the value of early coordinated SCI rehabilitation for the patients with traumatic SCI in Pakistan. While early surgery can help fix the spine and prevent deformity, it cannot reverse the neurological damage sustained by a transacted spinal cord. Moreover, the majority of the patients exhaust their finances for surgery and are often unable to afford SCI rehabilitation which is a long-term process. This is further complicated by the fact that neurosurgeons in Pakistan hardly give an adequate referral and patient guidance for SCI rehabilitation. The only advice in majority cases is "*maalish*', "exercise" or "physiotherapy". Physiotherapy is an integral part of the SCI rehabilitation but cannot address issues like neuropathic pain, pressure ulcer prevention, neurogenic bladder and bowel management and depression.

There is a need for better awareness both for the neurosurgeons and the general public about the

value of early referral for a multi-disciplinary SCI rehabilitation. The FCPS residents in Rehabilitation Medicine have a mandatory rotation in neuro-surgery. It is time that Neurosurgery residents should also do rotations in Rehabilitation Medicine to understand the value of multi-disciplinary SCI rehabilitation. This will ensure better outcomes for the SCI patients in Pakistan and help them achieve their full potential and contribute to the society like Christopher Reeve and Muneeba Mazari.

Although trauma care in Pakistan has substantially improved but coordinated rehabilitation services are still lacking. There is a dire need for spinal cord injury rehabilitation services which can be provided by a team of experts in spinal cord injury rehabilitation lead by a qualified rehabilitation medicine physician.

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Address for Correspondence:

Dr. Sami Ullah, Department of Rehabilitation Medicine, Rehabilitation Hospital, King Fahad Medical City, Riyadh-Saudi Arabia
Tel: +966-50-7175984
Email: drsamipmr@gmail.com