

# Working with limited resources in armed conflict country for transportation & Prehospital management of traumatic cervical spinal cord injured patients

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## Abstract

Traumatic cervical spinal injury (SCI) is one of the most devastating conditions with high rates of morbidity and mortality. First aid, transportation and on time management of such disorder play a vital role for favorable outcome and prognosis.

The aim of this study to review the pre-hospital, immobilization, transportation and management of traumatic cervical spinal injury and its outcome.

### Materials & Methods:

The department of Neurosurgery of Jamhuryte Hospital, Kabul Afghanistan, carried out this one year prospective case series from March 2017 to Mach 2018 to evaluate the pre-hospital management of SCI and its outcome.

### Results:

Eighty-nine cases were reported over period of one year. The SCI cases were more common among male (78.6%) compare to female gender. The main age groups were 20 to 45 year of age which was affected (73.8%). The main causes of morbidity and mortality were high amongst those who were involved in motor vehicle accident (45.8%) fall from height (41.9%). Twenty percent (20%) of patients transported from the accident scene to hospital that has had cervical collar stabilization. An average patient's admission time to the emergency department of hospital was 16-72 hours past-accident, accounted for 22.9%. The most popular mode of transportation from the scene to the hospital was Private cars (59.2%).

Associated injuries with SCI among these patients were long bone fractures (6.8%), traumatic brain injury (45.8%), and abdominal trauma (1.9%). Among cervical injury the sub-axial injury at the level of C3/C7 (76.7%) was the commonest cases to be handled on daily basis.

During admission, the complete and incomplete spinal cord injuries rates were 43.1% and 64.9% of patients, respectively.

Surgical procedures for SCI management performed in (25%) of the patients. With favorable outcome, who had regained motor and sensory recovery with no post-operative complications?

**Conclusion:** In Afghanistan traumatic cervical spinal cord injury is still one of the most catastrophic conditions with high rates of morbidity and mortality safe and rapid transportation of the cervical spinal cord injured patients to the medical facilities for definitive care has been a fundamental concept to improve the treatment outcome and to reduce the complications as whole.

## Biography

Dr. Hamed Shir Shinwari is consultant neurosurgeon in Daudzai Medical Complex, Nangarhar Afghanistan. He graduated from Nangarhar Medical Faculty (NMF) in 2014 and joined neurosurgery training in 2016 and graduated from Jamhuriat tertiary hospital in 2020, he operated more than 800 neurosurgery cases. He is the first Afghan neurosurgeon who represented Afghanistan in WFNS. He also written 11 medical books 4 of which is related to neurosurgery. He was the first author of Pashto neurosurgery book in Pashto language.