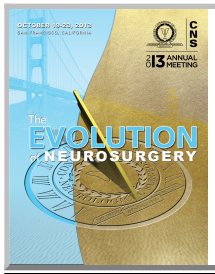

Missile Injuries of Spine and Spinal Cord in Civilian Kashmir - Analysis and Outcome Evaluated by New Modified SKIMS-Functional Grading System

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Introduction

The complexity of missile injuries of spinal cord with associated injuries has posed a challenge to the treating neurosurgeon due to the vulnerable vascularity of long and narrow spinal cord and infections

Methods

The missile injuries of spine were managed under a uniform standard-medical protocol. The civilians injured in bomb-blasts, metallic-bullets, pellets, tear-gas shells etc, were received within 24 hours of injury. Temporary spinal immobilization, resuscitation (ABC-Guidelines), methyl prednisolone infusion and clinico-imaging evaluation were carried out. The clinical evaluation was carried out by indigenous Modified SKIMS-Functional Classification and SKIMS-injury types. The outcome was assessed by Modified SKIMS-Functional Outcome scale

Results

Among 345 missile injuries of spine, 42.31% were dorsal. The penetrating-injuries were 56.52%%, SKIMS-injury type-a were 62.31% and metallic-bullets were commonest (70.72%) missile types. The SKIMS-Injury type-a patients had a comparatively lower complications (27.44% times i.e. 59 times in 215 patients) and deaths (7.44%) than type-b. The Modified SKIMS-Functional Classification and Outcome scale was effective in rapidly triaging and prognosticating injuries. About 15.65% patients died. The neurological grade improvement occurred in 40.58% patients. About 6.09% patients achieved the Modified SKIMS-Functional Group-D (good recovery) status at 6 months and 42.90% SKIMS Group A injuries had no improvement in the neurological grade. The intra-dural and intra-medullary missile -migration (Second-Flight of Bullet) occurred in 1.45% injuries. About 80.86% underwent surgery. Trans-axillary approach was applied in upper-dorsal injuries. The complications like septicemia, meningitis and CSF-leak were common

Conclusions

Modified SKIMS-Functional Classification, SKIMS -injury types and Modified SKIMS-Functional Outcome scale helped rapid triaging and prognosticating the missile-injuries of spinal cord

Learning Objectives

1. the Modified SKIMS-Functional Grading system is a rapid method of triaging Spinal injuries with associated trauma.

2. SKIMS Injury Types a) and b) catagorizes the contaminated and cleaner injuries for prognostic point of view.

3. That about 40% Missile injuries may improve due to aggressive surgical management.

4. Modified Approaches to spinal decompression and fixation in this study are new and better than existing methods and need be learned.

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