UPDATE MANAGEMENT OF THORACOLUMBAR SPINAL INJURY

Essay
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LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

Fig. No.	Title	Page No.

LIST OF ABBREVIATIONS

CC	Capacitive coupling
CMF	Combined magnetic fields
DC	Diret current
IC	Inductive coupling
PEMF	Pulsed electromagnetic fields
PLC	Posterior longitudinal complex
SCIWORA	Spinal cord injury without radiological abnormality
TLICS	Thoracolumbar injury classification and severity score
TLISS	Thoracolumbar injury severity score
VATS	Video assisted thoracoscopic surgery

INTRODUCTION

Fractures and dislocations of the spine are serious injuries that most commonly occur in young people[١].

Vertebral fractures of thoracic and lumbar spine are usually associated with major trauma and can cause spinal damage that result in neural deficits[٢].

Kraus et al. estimated that each year ٥٠ people in ١ million sustain a spinal cord injury. Of those who die within ١ year of their accidents, ٩٠% die on route to the hospital. With the development of regional trauma centers and increased training of paramedics and emergency medical technicians, the chances of survival after serious spinal cord injury have increased[١].

Overall, ٨٥% of patients with a spinal cord injury who survive the first ٢٤ hours are still alive ١٠ years later compared with ٩٨% of patients of similar age and sex without spinal cord injury[١].

The ideal classification for thoracolumbr fractures must be simple yet complete, and it must reflect an understanding of the mechanism of injury, correspond to anatomic pathology. It also should determine the treatment options, and be relevant to the prognosis. With the advent of the ٣ columns classification of spinal anatomy, a more precise analysis of spinal stability was made possible. Knowing which columns are intact, can

better enable the clinician to interpret the integrity of the spine as a load bearing column[٣].

Proper management of thoracolumbar injuries is predicated on a through understanding of the involvement of the structural and neural tissues. Initial evaluation includes a complete and through clinical Examination[٤].

Appropriate use of imaging modalities (plain X-rays in different and special views, computed tomography, and magnetic resonance imaging) provides additional information, allowing classification of the spinal injury, assessment of spinal stability and prognosis of recovery of neurologic deficits[٤].

The aim of spinal injury treatment is the restoration of spinal physiology, with relief of pain and restoration of stability without neurological damage[٥].

For many years, surgical measures were restricted to laminectomy, but experience in recent years has clearly shown that the best method of decompression of neural structures is rapid and perfect reduction of fracture or dislocation[٥].