

# **SURGICAL OPTIONS FOR TREATMENT OF THORACOLUMBAR FRACTURES**

## **Thesis**

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**NEUROSURGERY**

By

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## **ABBREVIATIONS**

AO	American Orthopedic group
ATT	Antituberculous therapy
CAD	Coronary arterial disease
MM	Magnetic myelogram
NASCIS	National Acute Spinal Cord Injury Study
T.B	Tuberculosis
TLSO	Thoracolumbosacral orthosis

## **ABSTRACT**

The thoracolumbar region consider important area which occurs several type fractures by trauma or pathological condition special metastatic tumors.

Thus, fractures of the vertebrae classified into two groups traumatic and pathological.

In our study, all patients present by pain range from mild back pain to severe back pain and if the fracture compressed the spinal cord cause numbness, tingling and weakness of lower extremities.

All patients investigated by routine x-ray, CT, MRI and some need further investigation such case of osteoporosis need measuring bone density by DEXA.

Management of patients must be consider individually according to underlying cause.

Our study included 50 patients admitted at Agouza Hospital, 20 of them traumatic cause (60%), 20 patients were due to pathological cause (40%).

Pathway of management include conservative, vertebroplasty and surgical.

### **KEYWORDS:**

Surgical Options  
Treatment  
Thoracolumbar  
Fractures

# INTRODUCTION

# INTRODUCTION

The thoracolumbar junction is the most common area of injury to axial skeleton (**Barr *et al.*, 2000; Chetan *et al.*, 2002; Price *et al.*, 1994**).

A wide variety of injury patterns and clinical presentation are encountered in this region, and multiple classification systems have been advised according to three column theory (**Belkoff *et al.*, 2001; Deramond *et al.*, 1998; Garfin *et al.*, 2001**).

The thoracolumbar region lack the stabilizing effect of the rib cage. The spinous processes are more horizontal, which provides increase mobility, so this region have greater mobility (**Price *et al.*, 1994; Yousrry *et al.*, 1999**).

Types of fractures can be classified into traumatic, pathological, osteoporotic and inflammatory (**Martin *et al.*, 1999; Price *et al.*, 1994**).

Any type can cause compression of the cord and cauda leading to neurological deficit (**Cortet *et al.*, 1999; Cortler *et al.*, 1986; Romero *et al.*, 1994**).

Goals of any form of treatment are to obtain a painless, balanced, stable spine with optimum neurological function and maximum spine mobility (**Chetan *et al.*, 2002; Jean, 2008; Lieberman *et al.*, 2001**).

# **AIM OF THE WORK**