



# **International Journal of ChemTech Research**

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555 Vol.12 No.03, pp 61-63, **2019** 

# Thoracic Spine Fracture-dislocation without Neurological deficit, a case report

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Abstract : Severe thoracic spinal fracture-dislocation without neurological symptoms is

frighteningly rare, an operation as one of choice of treatment.

**Key Words:** spinal, fracture-dislocation, neurological, without deficit.

#### **Introduction and Background**

Fracture-dislocation of the thoracic spine comprise about 16% of all thoracic and lumbar fractures, and are commonly caused by high road accidents. Unlike the cervical spine, the thoracic spine is stabilized by its connection to the rib cage by transverse costal ligaments. The position of the articular facets provide resistance to axial rotation and horizontal translation. Therefore, a severe injury is required to bring about a fracture-dislocation at this level. These injuries, due to the narrowness of the thoracic canal and the precarious blood supply of the cord, lead to complete paraplegia in more than 80% of cases.

Thoracic spine fracture-dislocations that are not accompanied by neurological damage are extremely rare, and only a few cases are described in the literature.

### **CASE**

A 17-year-old female had T4 to T5 vertebral fracture and anterolateral dislocation without neurological symptoms. The three-dimensional reconstruction by computedtomography indicated the injuries in detail.

Alamsyah Faritz Siregar et al /International Journal of ChemTech Research, 2019,12(3): 61-63.

DOI= http://dx.doi.org/10.20902/IJCTR.2019.120310



Figure.1 AP and Lateral radiographs of the thoracic spine revealed fracture and anterolateral dislocation of the T4 and T5 vertebrae

A patient with thoracic spinal fracture-dislocation without neurological symptoms should be evaluated in detail, especially with three-dimensional reconstruction by computed tomography.



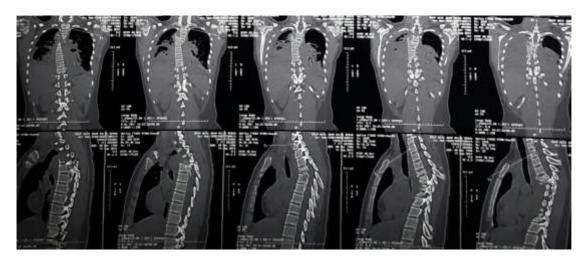


Figure.2Three dimensional computed tomography scan of the thoracic spine revealed fracture and complete dislocation of T4 to T5

Although treatment is individualized, reduction and internal fixation are advised for patient if the condition permits.

#### Results

3 weeks after conservative, patient have no complain about pain, and any other neurologic deficit, patient suggested to mobilization with ThoracolumbosacralOrthosis after bedrest continue of 3 months.

### Conclusion

Severe thoracic spinal fracture-dislocation without neurological symptoms is frighteningly rare, an operation as one of choice of treatment.

Key Words: spinal, fracture-dislocation, neurological, without deficit.

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