

SURGICAL MANAGEMENT OF THORACOLUMBAR FRACTURE

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Aim. The thoracolumbar junction is the most common site of spinal column fractures. The goals of treatment are leading to early mobilization and rehabilitation by restoring mechanical stability and inducing neurologic recovery. The aim of this paper was to discuss different types of spinal instability as well as surgical management of thoracolumbar fracture.

Methods. A sample of 49 patients operated on due to traumatic thoracolumbar fracture was analyzed in a single-institution retrospective survey during one-year period. Investigated features were: age and gender, mechanism of injury, level of injury, fracture type, and initial neurological deficit. Based on physical examinations and imaging studies, fracture stability is evaluated to decide operative management.

Results. Elderly patients mainly sustained falls from standing position to ground (25/49; 51%) causing injury due to osteoporosis and decreased cognition. The most affected vertebral level was T11-L2 30/49 (61%) which was the biomechanical weak point for stress. Vertebral body burst fracture was the type of injury most commonly recorded (25/49; 51%). Merely 30% (15/49) of fractures were associated with initial neurologic damage of various degrees.

Conclusion. Morbidity can be decreased and good clinical and radiologic outcomes may be achieved if recent operative techniques are used considering the fracture type and severity of injury. The principals obtaining mechanical and neurological stability have not been changed, yet the surgical methods have been improved and diversified favoring minimal invasive surgical technique when possible.