

Table 28-1

Lumbosacral Dissociation Injury Treatment

Indications for nonoperative treatment:

- Severely compromised soft tissue envelope
- Multiple severe injuries with expected immobility >3 months

Operative treatment:

- Closed lumbosacral dissociation injury
- No other significant injury preventing mobility
- Posterior spinal fusion with instrumentation and decompression with evidence of sacral nerve root deficit
- Percutaneous sacroiliac screw fixation if expected immobility 6 weeks and appropriate injury pattern

Table 28-2

Summary of Institutional Review of Low Lumbar Spine Burst Fractures From September 2001 to May 2008

Inclusion criteria:

- Burst fracture from T12-L5
- At least 1-year clinical follow-up
- Damage to at least 1 vertebral endplate or body
- Loss of vertebral body height with retropulsion into the spinal canal

Patients:

- 32 patients with 39 thoracolumbar burst fractures (7 patients with multiple fractures)
- 20/32 patients with low lumbar burst fracture
- 14/39 (35.9%) thoracolumbar junction fractures
- 25/39 (64.1%) low lumbar spine fractures
- 14/25 (56%) low lumbar spine burst fractures with major neurologic injury

Outcomes:

- 12/20 (60%) patients with L3-L5 burst fracture operative management
- 10/12 (83.3%) patients T12-L2 burst fracture operative management
- 10/32 patients treated with nonoperative management
- 4/22 (18.2%) infection rate operative management
- 1/14 low lumbar burst fractures with initial neurologic injury with persistent neurologic deficit at 1-year follow-up
- 1.6/10 mean VAS L3-L5 operative management
- 2.0/10 mean VAS T12-L2 operative management

INSTITUTIONAL REVIEW OUTCOMES AND COMPLICATIONS

WRAMC performed a retrospective review of medical records and imaging studies of all combat casualties with thoracolumbar fractures treated during the Iraq and Afghanistan conflicts between September 2001 and May 2008, and with at least 1-year clinical follow-up.⁸ WRAMC treated 32 patients with thoracolumbar spine burst fractures in a 7-year time period

(Table 28-2). There were a total of 39 thoracolumbar burst fractures, with 25 of 39 (64.1%) at the L3 to L5 level, and there was an infection rate of 18.2% in all thoracolumbar spine fractures treated with operative management. The combat casualties with low lumbar spine burst fracture experienced major neurologic injury in 14 of 25 fractures (56%). However, after 1 year of follow-up, only 1 patient with initial neurologic injury had a continued neurologic deficit.