

Analysis of the outcomes and complications of patients with traumatic spinal fractures treated with different types of surgical interventions.

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INTRODUCTION

A break or discontinuity in the bone's cortex is referred to as a fracture.

According to AO thoracolumbar spine classification, injuries are of 3 types:

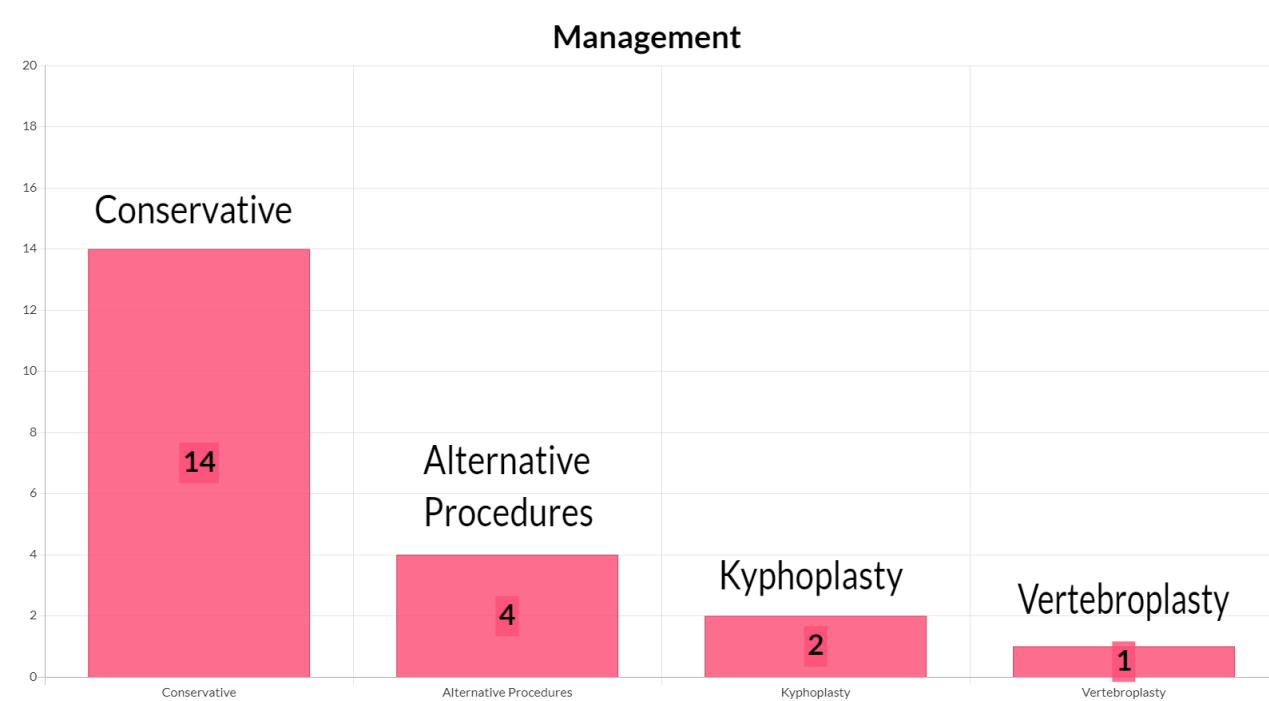
1. Type A- compression injuries
2. Type B- distraction injuries
3. Type C- translation injuries

Mild to moderate injuries can be managed effectively conservatively with the help of braces and rest however severe injuries often require surgical intervention such as vertebroplasty, kyphoplasty, fusion.

The aim of this study was to analyze the different surgical interventions for patients presenting with traumatic spinal fractures and their outcomes and complications.

MATERIALS AND METHODS

This observational study was conducted in Downtown Hospital and retrospective data was collected between 2020 and 2023. Observation, interviews, and document analysis are among the various data collection methods employed. Adult patients with traumatic spinal fractures who underwent treatment were identified and data was documented. The data was compiled and analyzed using Excel and SPSS 25.0

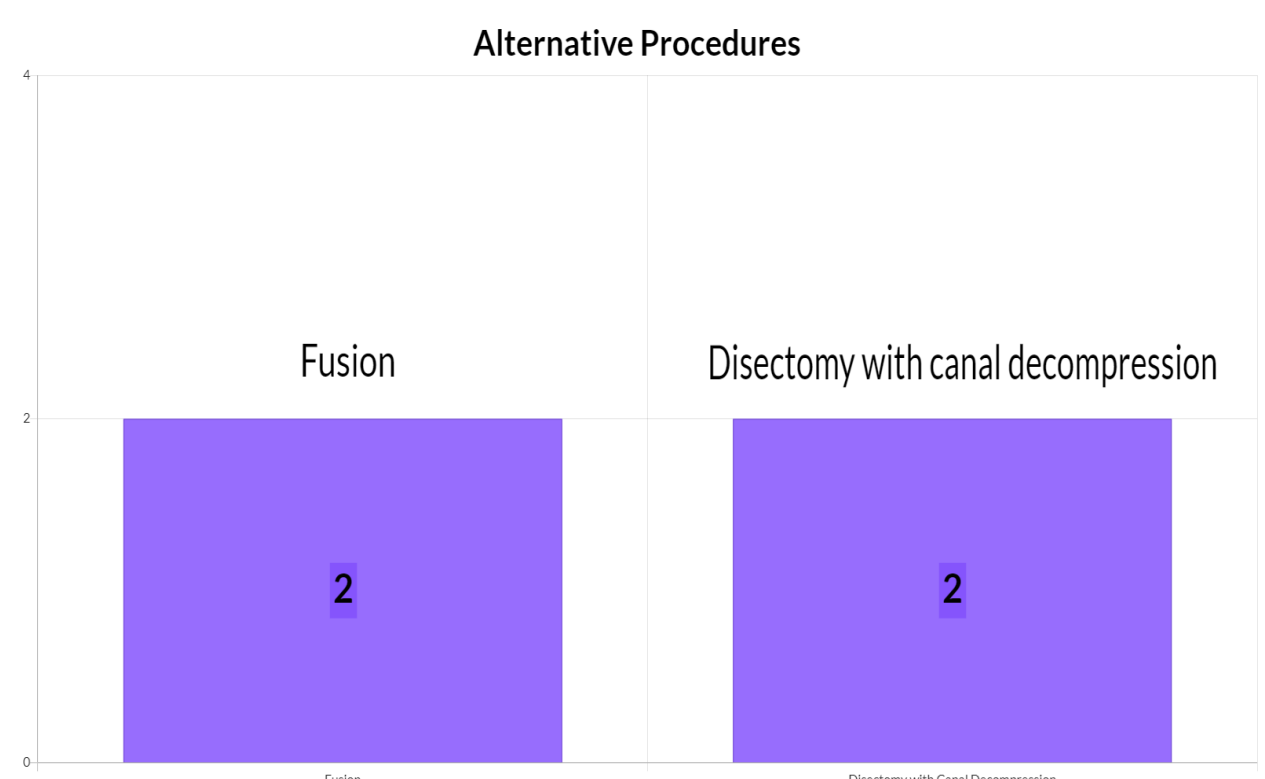
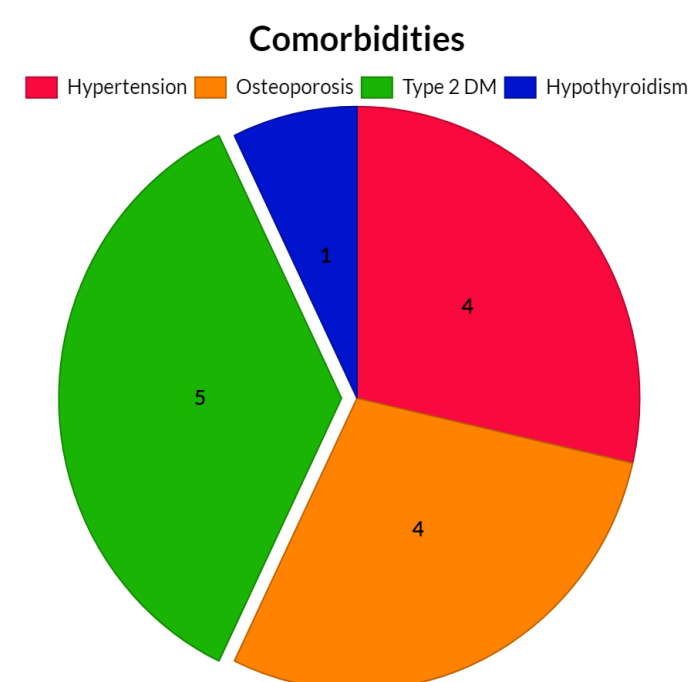
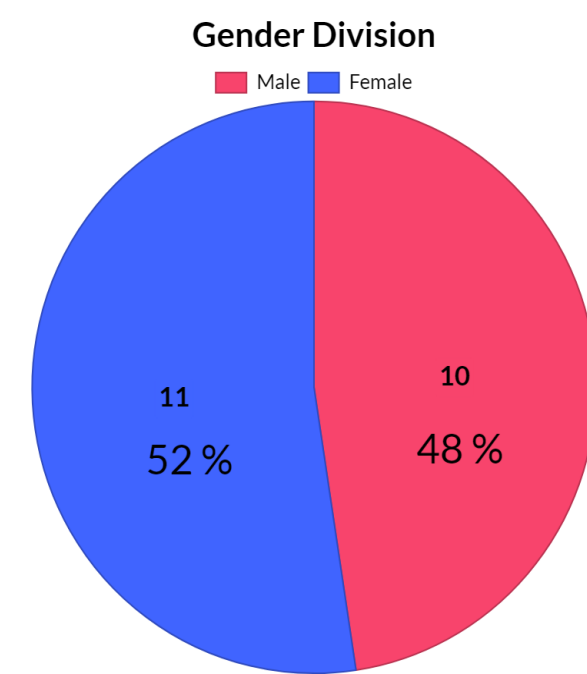


RESULTS:

A total of 21 patients underwent treatment for traumatic spinal fractures in the hospital between 2020-2023. 52% of patients were female and 48% were male. 4(19%) patients had pre-existing osteoporosis, 4(19%) had hypertension, 5(24%) had Type 2 Diabetes and 1(4.7%) had hypothyroidism. 4(19%) patients had traumatic fracture due to a road traffic accident whereas the other 17(81%) patients had a fall from height. A total of 2(9.5%) patients underwent a kyphoplasty, 1(4.7%) was treated with a vertebroplasty, 14(66.66%) were managed conservatively and the remaining 4(19%) underwent alternative procedures. Of the 4 patients undergoing multiple procedures 2 underwent fusion whereas the rest underwent discectomy with canal decompression. No patients had postoperative complications and evaluation after 4-6 weeks revealed no complications. Recovery was slower in the elderly and those with comorbidities.

CONCLUSION:

The majority of patients presenting, opted to be managed conservatively despite advice for surgery. **Conservative management has not led to any long-term complications or deformities.** Kyphoplasty was not associated with a higher risk of adverse outcomes compared to vertebroplasty. **Age and medical comorbidities are significant risk factors** for traumatic spinal fractures. **Type 2 diabetes was the prevalent comorbidity** among the studied population.



REFERENCES:

Operative treatment of 733 patients with acute thoracolumbar spinal injuries: comprehensive results from the second, prospective, Internet-based multicenter study of the Spine Study Group of the German Association of Trauma Surgery
<https://doi.org/10.1007/s00586-010-1451-5>