Employment Outcomes Following Thoracolumbar Fractures: Long Term Follow Up Greater Than 5 Years

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Introduction

Over twenty percent of thoracolumbar fractures are linked to neurologic injuries, in severe cases, complications such as paralysis and deformity are observed. Even if patients do not develop these complications, they may face restrictions and challenges in returning to work. The aim of this study was to investigate return to employment beyond five years following a traumatic thoracolumbar fracture.

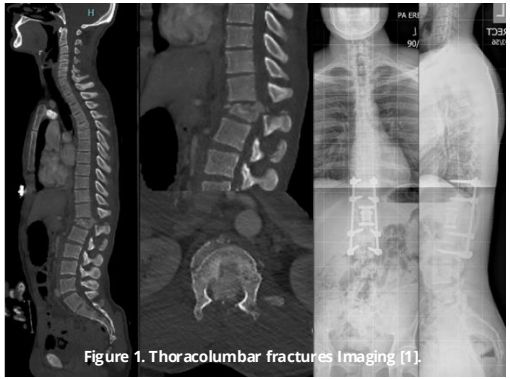

Figure 1. Thoracolumbar fractures Imaging [1].

Method

235 patients between the ages of 18-65 were identified from the hospital radiology database having sustained a traumatic thoracolumbar fracture on CT or MRI between 01/01/2013 and 31/01/2017. Questionnaires were sent out via post and available emails, followed by reminder letters and phone calls. Retrospective data was gathered about employment status pre-fracture and >5-years post injury. Other outcome measures included prior and current spinal related pain, prior and current spinal neurological deficits, AO Spine Patient-Reported Outcome Spine Trauma (PROST) questionnaire, and care satisfaction.

Results: Demographics

At follow up 26 patients had died leaving 209 patients, with 108 (52%) being treated surgically and 101 (48%) conservatively. Of these 85 (41%) patients opted in with 21 (10%) patients opting out and 100 (49%) giving no replies. Of the responders 68 (80%) patients completed the full questionnaire with 17 (20%) filling out a shortened questionnaire via a phone conversation. 52 (61%) patients underwent surgery and 33 (39%) were treated conservatively with an average follow up time of 8 years.

Employment outcomes of previously employed individuals comparing surgical and conservative groups

	Total Cohort N= 66	Surgical N=43	Conservative N=23	P
Work Status				
Returned to Same/ increased Skill Level [n(%)]	47 (71)	29 (67)	18 (78)	0.355
Unemployed or Returned to a reduced skill level [n(%)]	19 (29)	14 (33)	5 (22)	
Hours work				
Same or increased hours [n(%)]	35 (53)	20 (47)	14 (61)	0.455
Reduced hours [n(%)]	14 (21)	10 (23)	5 (22)	
Unemployed [n(%)]	17 (26)	13 (30	4 (17)	

Figure 2. Employment outcomes of those previously employed comparing surgical and conservative management [2].

Results: Employment

Prior to injury 66 (78%) were employed and 19 (22%) unemployed (of which 6 were full time students and 8 were retired). Of the previously employed patients 49 (74%) returned to the same level of work at follow up with 35 (53%) of those working the same or increased hours. At follow up all 6 students were in full time work and 2 of the 5 individuals unemployed due to reasons not stated were employed full time. Regarding employment, there was no significant difference between surgically and conservatively treated patients (P=0.355) or the classification of the fracture (P=0.303). 32 (38%) patients reported neurological deficit post injury: 19 with subjective symptoms, 9 with objective symptoms and 4 suffered paralysis.

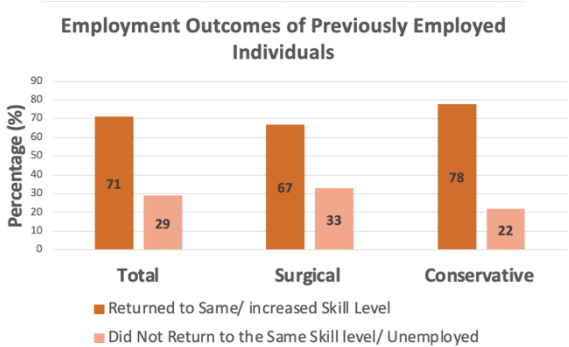

Figure 3. Employment outcomes of previously employed individuals comparing skill level of employment following injury [3].

Conclusion

>5-years following a traumatic thoracolumbar fracture most individuals return to employment, with the majority going back to the same skilled level of work. There was no significant difference between the severity of the fracture or how patients were treated on their employment outcomes.

Acknowledgments

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References

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