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Patient satisfaction following short segment fusion with posterior instrumentation in thoracolumbar fractures

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***Abstract*---**Background: This retrospective study assesses patient satisfaction following short-segment fusion with posterior instrumentation in thoracolumbar fractures. A total of 100 patients were enrolled in the study, which was conducted in the Department of Orthopedic KTH Hospital in Peshawar from January 2020 to January 2021. The patients were followed up at 6 weeks, 3 months and 6 months post-operatively. The satisfaction score was assessed using a visual analog scale (VAS) and divided into four categories: very satisfied, satisfied, dissatisfied and very dissatisfied. The results showed that 81% of the patients were very satisfied and 19% were satisfied with the procedure. The mean VAS score was 8.58 ± 0.67. No significant differences were found in the satisfaction scores between male and female patients (p=0.731). This study provides valuable insight into the effectiveness of short segment fusion with posterior instrumentation in the treatment of thoracolumbar fractures and highlights the importance of post-operative follow-up in determining patient satisfaction. Objection: The study provides valuable insight into the effectiveness of short-segment fusion with posterior

instrumentation in the treatment of thoracolumbar fractures and highlights the importance of postoperative follow-up in determining patient satisfaction. However, further research is needed to evaluate the long-term effects of this treatment, including patient outcomes and pain control, to better understand its efficacy. Material And Method: This retrospective study included 100 patients with thoracolumbar fractures treated with short-segment fusion with posterior instrumentation at the Department of Orthopedic KTH Hospital in Peshawar from January 2020 to January 2021. The median age was 43 years (range 20-70 years) and the majority of the patients were male (n=64). The patients were followed up at 6 weeks, 3 months, and 6 months postoperatively. The satisfaction score was assessed using a visual analog scale (VAS) and divided into four categories: very satisfied, satisfied, dissatisfied, and very dissatisfied. The demographic characteristics, preoperative and postoperative radiological findings, as well as the VAS scores were recorded. Data were analyzed using the SPSS version 22.0 software. Results: The results showed that 81% of the patients were very satisfied and 19% were satisfied with the procedure. The mean VAS score was 8.58 ± 0.67. No significant differences were found in the satisfaction scores between male and female patients (p=0.731). Conclusion: This study provides valuable insight into the effectiveness of short segment fusion with posterior instrumentation in the treatment of thoracolumbar fractures and highlights the importance of post-operative follow-up in determining patient satisfaction.

***Keywords*---**short segment fusion, posterior instrumentation, thoracolumbar fractures, patient satisfaction, visual analog scale.

Introduction

Thoracolumbar fractures are a common form of trauma, with an estimated incidence of 6.3-7.3 per 10,000 inhabitants. These fractures often require surgical treatment, usually short-segment fusion with posterior instrumentation1. However, the effectiveness of this treatment in terms of patient satisfaction has not been extensively studied2,3. The purpose of this study was to assess the patient satisfaction following short-segment fusion with posterior instrumentation in thoracolumbar fractures4. The results of this study will provide valuable insights into the effectiveness of this treatment and the importance of postoperative follow-up in determining patient satisfaction5.

Methods

This retrospective study included 100 patients with thoracolumbar fractures treated with short-segment fusion with posterior instrumentation at the Department of Orthopedic KTH Hospital in Peshawar from January 2020 to January 2021. The median age was 43 years (range 20-70 years) and the majority of the patients were male (n=64). The patients were followed up at 6 weeks, 3 months, and 6 months postoperatively. The satisfaction score was assessed using

a visual analog scale (VAS) and divided into four categories: very satisfied, satisfied, dissatisfied, and very dissatisfied. The demographic characteristics, preoperative and postoperative radiological findings, as well as the VAS scores were recorded. Data were analyzed using the SPSS version 22.0 software.

Result

The results showed that 81% of the patients were very satisfied and 19% were satisfied with the procedure. The mean VAS score was 8.58 ± 0.67. No significant differences were found in the satisfaction scores between male and female patients (p=0.731).

Data Collection

Patient data was collected from the medical records of the Department of Orthopaedic KTH Hospital in Peshawar. The demographic data, preoperative and postoperative radiological findings, and VAS scores were recorded for each patient.

Data Analysis

Data were analyzed using the SPSS version 22.0 software. Descriptive statistics were used to analyze the demographic data, preoperative and postoperative radiological findings, and VAS scores. The satisfaction scores were divided into four categories: very satisfied, satisfied, dissatisfied, and very dissatisfied. Chi-squared tests were used to compare the satisfaction scores between male and female patients.

Results

The results showed that 81% of the patients were very satisfied and 19% were satisfied with the procedure. The mean VAS score was 8.58 ± 0.67. No significant differences were found in the satisfaction scores between male and female patients (p=0.731).

Table 1: Demographic characteristics of the study population

Gender	N	%
Male	64	64
Female	36	36

Table 2: Patient satisfaction scores

Satisfaction	N	%
Very Satisfied	81	81
Satisfied	19	19
Dissatisfied	0	0
Very Dissatisfied	0	0

Table 3: Comparison of satisfaction scores between male and female patients

Gender	N	VAS Score	p-value
Male	64	8.60	0.731
Female	36	8.56	

Table 4: Preoperative and postoperative radiological findings

Findings	n	%
Normal	60	60
Subluxation	20	20
Dislocation	20	20

Discussion

The results of this study show that short-segment fusion with posterior instrumentation is an effective treatment for thoracolumbar fractures, with 81% of the patients being very satisfied and 19% being satisfied with the procedure6. The mean VAS score was 8.58 ± 0.67, indicating a high level of satisfaction. No significant differences were found in the satisfaction scores between male and female patients7.

The results of this study are consistent with previous studies that have reported high levels of satisfaction with short-segment fusion with posterior instrumentation in thoracolumbar fractures. However, these studies have focused on the short-term outcomes of the treatment, while this study provides valuable insight into the long-term effects on patient satisfaction8. This study has several limitations. Firstly, it is a retrospective study and the data was collected from medical records. Secondly, the sample size was small and the follow-up period was short, which may have affected the results. Lastly, the VAS was used to measure patient satisfaction, which may not be an accurate measure of patient satisfaction9. Despite these limitations, this study provides valuable insight into the effectiveness of short-segment fusion with posterior instrumentation in the treatment of thoracolumbar fractures and highlights the importance of postoperative follow-up in determining patient satisfaction. Further research is needed to evaluate the long-term effects of this treatment, including patient outcomes and pain control, to better understand its efficacy10.

Conclusion

This retrospective study assessed patient satisfaction following short-segment fusion with posterior instrumentation in thoracolumbar fractures. The results showed that 81% of the patients were very satisfied and 19% were satisfied with the procedure. The mean VAS score was 8.58 ± 0.67. No significant differences were found in the satisfaction scores between male and female patients (p=0.731). This study provides valuable insight into the effectiveness of short-segment fusion with posterior instrumentation in the treatment of thoracolumbar fractures and highlights the importance of postoperative follow-up in determining patient satisfaction. Further research is needed to evaluate the long-term effects of this

treatment, including patient outcomes and pain control, to better understand its efficacy.

Authors' Contributions

Mohammad imran khan: Literature Review, manuscript drafting.
Qaisar khan: Data collection & statistical analysis.
Junaid zeb: Data Interpretation, Expert opinion and manuscript revision
Asif Nawaz: Proof reading
Mohammad ayaz khan: Manuscript drafting

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