



Comparison Between Patient and Surgeon Perception of Outcomes of Operations for Degenerative Spine Disease: A Prospective Blinded Database Study

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Introduction

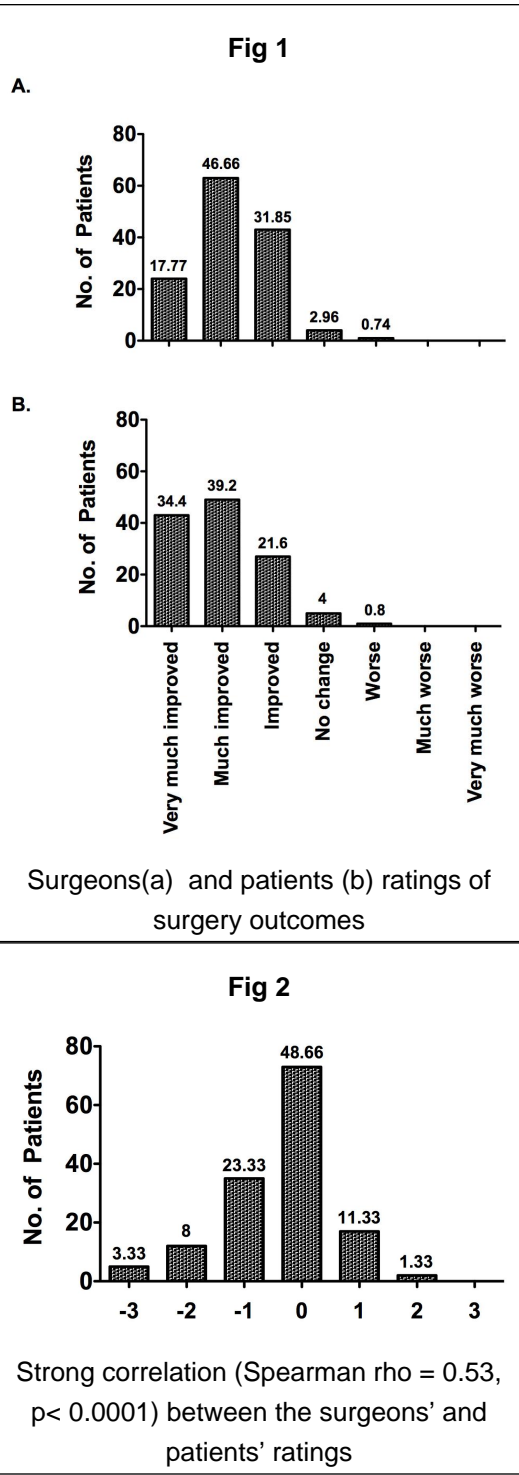
Patient filled questionnaires, such as Oswestry Disability Index (ODI) or Neck Disability Index (NDI) have become the mainstay in evaluation of treatment outcomes in degenerative spine disease (DSD), replacing result reporting by surgeons. In this study we set to compare patients’ and surgeons’ assessment of spine treatment outcome in a prospective blinded patient-driven spine surgery outcomes registry.

Methods

In a prospective blinded registry, patients filled out surveys at baseline, at recruitment preoperatively and at 3 and 6 months postoperatively. Pain was rated on a Visual Analog Scale (VAS) from 0-10, while Neck Disability Index (NDI) was scored for cervical spine patients and Oswestry Disability Index (ODI) for lumbar patients. At 3 and 6 months postoperatively, outcome was rated independently by patients and surgeons on a 7-point Likert-type scale.

Results

265 consecutive adult spine surgical patients were enrolled in the database; 97 (36.6%) had cervical spine disease, 160 (60.4%) - lumbar spine disease and 4 patients (1.5%) - both; 154 patients (58.1%) opted for surgical intervention, of whom 69 (44.8%) had cervical spine and 85 (55.2%) lumbar procedures . Of the 154 patients who had surgery, 135 (87.7%) had outcome ratings from both the patient and the surgeon in corresponding postoperative time frames. We found that surgeons’ and patients’ ratings correlated strongly (Spearman rho= 0.53, p< 0.0001); 45.9% were identical and 88.2% were within +/- 1 grade of each other. The surgeon rated outcomes as better than patients did in 29.8% and worse in 21.15% of cases. Patient rating correlated better with the most recent NDI/ODI and pain score than with the incremental change from the baseline. In a multivariate analysis, age, site of surgery, pain ratings, functional scores (NDI, ODI) did not have significant impact on the discrepancy between patient and surgeon ratings.



Patients' ratings						
	Lumbar			Cervical		
	N	Sp.rho	P-value	N	Sp.rho	P-value
Recent ODI/NDI	85	0.5817	<0.001*	69	0.4801	<0.001*
Δ ODI/ ΔNDI	85	0.3212	0.016*	69	0.5639	<0.001*
Recent Pain score	85	0.4501	<0.001*	69	0.4870	<0.001*
Δ Pain score	85	-0.1821	0.171	69	0.5442	<0.001*

Correlation between patients' ratings and functional (ODI/NDI) or pain (VAS) scores 6 months post-surgery.

Conclusions

Patients’ and surgeons’ global outcome ratings for spinal disease correlate highly between each other. Moreover, patients’ ratings correlate better with their most recent functional scores rather than the incremental change from their baseline.

Learning Objectives

(1) Understand how patients’ and surgeons’ outcome ratings of DSD compare to each other; (2) How patients perception of outcome correlates with commonly used functional score such as NDI/ODI/VAS.