Back Pain

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An American study of the effectiveness of surgery (posterolateral lumbar fusion) for back pain and, predictors of outcome.

185 Worker's Compensation supported patients were treated by posterolateral lumbar fusion at least 2 years before the current survey. Subjects were frequently found to have abnormalities in the spine prior to operation.

Medical records were analysed for: age at time of injury, income, delay to surgery, smoking, current depressive disorder, litigation status at time of surgery, previous LBP operations, extent of fusion.

Patient outcomes were surveyed by phone: Roland and Morris Back Pain Disability questionnaire. Stauffer-Coventry Index for surgical outcome, SF 20 for functioning health and pain.

70% of cases were surveyed.

Arthrodesis (the intended biological outcome) was successful in 73 % of cases. However the effect on disability did not correlate with this. Improved quality of life occurred in less than half of surgical cases.

Increased risk of postoperative disability was found to vary with: (OR = Odds Ratio)

Age

 \overline{OR} = 2.1 (95% CI = 1.45,3.29) for each 5 yr. over 25.

Litigation

OR = 4.7 (95% CI = 1.6,13.9)

Degree of fusion

OR = 2.9 (95% CI = 1.2,7.3)

Pre-surgical depression and previous operations on the back also predicted poor outcomes.

Significant Protective Factors: income.

Comment

The analyses in the paper were not fully reported, but it would seem that evidence was found in support of posterolateral lumbar fusion for some cases. However there is some doubt as to its efficacy, especially as disability outcome at 4 years was positively correlated with the extent of (i.e. the success of) fusion derived from the operation.

Physical health may not be an accurate predictor of ability or disability among people who complain of back pain. Expert evidence should include psychosocial assessment.