PSYCHOLOGICAL DISTRESS PREDICTING PAIN, DISABILITY, AND EMPLOYMENT OUTCOMES FOR STRUCTURAL SPINE SURGERY: SYSTEMATIC REVIEW

Erinn L. Acland, MA
University of Toronto
Student/Trainee

INTRODUCTION / AIM

Psychological distress has been associated with poorer treatment outcomes for several chronic pain conditions, although this has not been rigorously reviewed among patients undergoing decompression for lumbar radiculopathy. This systematic review determined how pre-surgical psychological distress affects spine surgery outcomes in chronic pain patients.

METHODS

Search engines Embase, MEDLINE, PsycINFO were screened for keywords related to “pain” and “mental disorders” resulting in 7308 articles. The results were further limited to those containing “spine surgery” then abstract and full-text reviews narrowed the articles down to a total of 13.

RESULTS

In the reviewed articles, psychological burden was assessed using measures of depression and anxiety. Postoperative improvements in both back and leg pain were observed among patients with both low and high levels of preoperative psychological distress ($p < 0.05$). However, patients with low psychological distress were significantly more likely to experience a reduction in pain after intervention (low psych: 72% vs high psych: 46%, $p < 0.001$). A similar pattern was seen for disability outcomes, where psychological burden predicted the extent of improvement (mean reduction in ODI score for low psych: 23 vs high psych: 10, $p < 0.05$). Lastly, psychological distress significantly predicted the percentage of patients that returned to work postoperatively (low psych: 79% vs high psych: 22%, $p < 0.001$).

DISCUSSION / CONCLUSIONS

This review provides compelling support that significant preoperative psychological distress is related to pain and disability outcomes for structural spine surgery of degenerative diseases. Further work should investigate screening and preoperative management of such distress prior to elective pain surgery.

OTHER AUTHORS

Mohammed F. Shamji