A video programme plus a booklet was more effective than a booklet alone for increasing patient knowledge about lumbar spine treatment options for low back pain


QUESTION: Is an interactive video programme plus a booklet more effective than a booklet alone for increasing the knowledge necessary to make informed choices about surgical compared with non-surgical lumbar spine treatment for low back pain?

Design
Randomised (allocation concealed), unblinded, controlled trial with follow up between 27 and 56 days.

Setting
An academic, orthopaedic surgical practice in Iowa, USA

Patients
100 patients ≥20 years of age (mean age 50 y, 56% men, 59% with a diagnosis of herniated disc) who were candidates for lumbar spine surgery and who had received non-surgical treatment for ≥4 weeks. Exclusion criteria were emergent indication for surgery, no indication of a surgically correctable lesion, previous low back surgery, pregnancy, cancer or infection causing back pain, severe hearing or visual impairment, unfamiliarity with English, inaccessibility because of a planned move, or lack of a home telephone. Follow up was 90%.

Intervention
47 patients were allocated to receive a booklet plus the “shared decision making” videodisc (produced by the Foundation for Informed Medical Decision Making, Hanover, New Hampshire, USA) and 53 patients were allocated to receive the booklet alone.

The videodisc included computer graphics of spinal anatomy; information on low back and leg pain, and surgical and non-surgical care; and patient interviews with the use of an interactive screen that enabled patients to obtain information tailored to their age and specific causative diagnosis. Viewing occurred in an office setting during the week before the second visit with the orthopaedic surgeon. All patients received the booklet, which contained anatomic illustrations of the lumbar spine and a complete discussion of surgical and non-surgical treatment options.

Main outcome measure
Knowledge was measured by a knowledge test (scores ranging between 0 and 17) at baseline (prettest) and at 27 to 56 days (post-test).

Main results
Analysis was by intention to treat. After adjusting for baseline knowledge score, age, education, sex, and diagnosis, patients who received the videodisc plus the booklet showed a greater improvement in knowledge (p = 0.05) but no difference in preference for surgery (23% vs 42%, p = 0.4) than those who received the booklet alone. Subgroup analyses showed that greater mean improvements in knowledge test scores were seen with the videodisc and the booklet than the booklet alone among those with low baseline knowledge scores (range 0 to 5) (8.8 vs 5.5, p = 0.02) and among those with a diagnosis of herniated disc (p = 0.03). Among patients with medium baseline knowledge scores (range 6 to 11) and high baseline knowledge scores (range 12 to 17), no differences existed between the videodisc plus the booklet and the booklet alone for knowledge improvement.

Conclusion
A video programme plus a booklet was more effective than a booklet alone for increasing the knowledge necessary for patients to make informed choices about surgical compared with non-surgical lumbar spine treatment for low back pain.