

Long-term functional outcomes following transforaminal endoscopic surgery RCT data to two years

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Objective

To determine if the excellent short-term outcomes observed after transforaminal endoscopic discectomy (TESS) were maintained through 12 and 24 months and comparable to those after microdiscectomy (Micro).

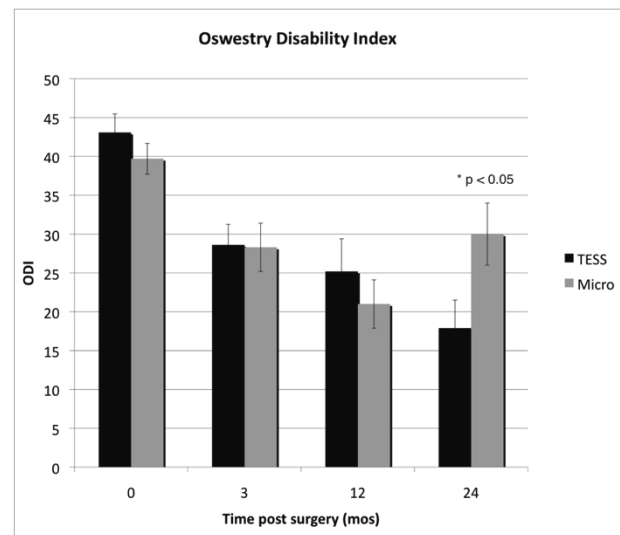
Methods

109 patients with a single-level primary lumbar disc prolapse (age 25-55 years and weight <100 kg) have been recruited as part of a TESS vs. Micro RCT. Anaesthesia was by sedation plus local anaesthesia or GA respectively. Functional outcomes and costs were collected 3, 12 and 24 months post-surgery.

Results

In the TESS group back pain had decreased 3 months after surgery by a mean of 61% and pain in the affected leg by a mean of 44% (VAS 0-10 score). These improvements were maintained to 2 years. ODI progressively decreased from a mean of 43 at surgery to 29, 25 and 18 at each assessment time. SF-36PF increased from 37 ± 24 to 68 ± 27 , $p < 0.05$; SF-36MH scores were unchanged. Results were not significantly different from those following Micro with the exception of ODI, which was better at 2 years in the TESS group (18 ± 14 TESS, 30 ± 18 Micro, $p < 0.05$, $n=49$).

Revision rates were higher following TESS (4 versus 1 by 2 years) but 3 patients chose repeat endoscopic surgery. 9 patients were lost to follow up at 12 months (5 TESS, 4 Micro).



Conclusion

Improvements in back pain, leg pain and function following TESS are maintained to two years and equivalent to those after microdiscectomy. A higher rate of revision may reflect the learning curve of a technically difficult procedure.