

Abstract #592.docx

SURGERY VS NONSURGICAL TREATMENT OF CERVICAL RADICULOPATHY. A 5-8 YEAR FOLLOW-UP OF A PROSPECTIVE, RANDOMIZED TRIAL

Introduction/ Aim

Anterior cervical decompression and fusion (ACDF) is a commonly used surgical procedure for patients suffering from cervical radiculopathy, but the knowledge of the effects compared to nonsurgical treatment is scarce. The aim of this prospective, randomized study was to evaluate the mid- to long-term results of ACDF followed by physiotherapy, compared to physiotherapy alone.

Materials and Methods

59 patients were randomized to ACDF with a titanium implant (BAK/C), followed by physiotherapy or the same structured physiotherapy program alone for at least three months. Patients were followed by an unbiased observer for 5-8 years. Outcome measures were disability assessed with Neck Disability Index (NDI 0-100%), neck and arm pain assessed with Visual Analogue Scale (VAS 0-100mm), patients' global assessment (better/much better or unchanged/worse) and health status assessed with Euroqol 5-dimensions index (EQ-5D index 0-1). The mean age at inclusion was 46 years (range 29-63). The proportion of men was 51%.

Results

There were no significant differences between the two groups before randomization. At the 5-8 year follow-up, NDI was reduced with a mean difference of 21 (14-28) score % (mean (95%CI)) in the surgical group and 11 (4-18) in the nonsurgical group ($p=0.03$). Neck pain was reduced by 39 (26-53) mm compared to 19 (7-30) ($p=0.01$), and arm pain by 33 (18-49) mm compared to 19 (7-32) ($p=0.1$). EQ 5D index was increased with 0.29 (0.13-0.45) compared to 0.14 (0.01-0.27) ($p=0.12$). 93% of the patients in the surgical group rated their symptoms as "better" or "much better" compared to 62% in the nonsurgical group ($p=0.005$). Significant improvement compared to baseline was seen in both groups and for all outcome measures.

Conclusion

In this group of patients, anterior cervical decompression and fusion in combination with physiotherapy was more effective in reducing disability and neck pain than physiotherapy alone at the 5-8 year follow-up. A significantly larger part of the surgically treated patients also rated their symptoms as better or much better. There were no significant differences between the treatment groups regarding improvement of arm pain or health status.