

Abstract #1234.docx

ANALYSIS OF POST-OPERATIVE CLINICAL OUTCOME BETWEEN PATIENTS WITH AND WITHOUT HISTORY OF CERVICAL SPINE SURGERY—A MULTICENTER STUDY OF 1313 PATIENTS WITH 2-YEAR FOLLOW-UP FROM THE ASSOCIATION FOR COLLABORATIVE SPINAL RESEARCH

Introduction/ Aim

This study assessed outcome differences between patients with and without cervical spine surgery history using HRQOL (SF-36 and NDI) data.

Materials and Methods

A multicenter prospective database was retrospectively reviewed. Patients ages >18 with cervical spinal pathology and $\leq$ grade 1 spondylolisthesis, requiring 1-2 level surgery were included. The two cohorts were patients with (W) or without (WO) cervical spine surgery history. HRQOL data were analyzed controlling for age and time as gender, BMI and diagnosis showed no statistical significance in univariate models. To account for dependent data structure, R “nlme” was used to fit linear mixed models for continuous longitudinal outcome.

Results

1313 patients (378 W, 935 WO) were included. Both groups experienced HRQL score improvement. The W group had decreased improvement in NDI (3.448, $p=0.0018$), Role Physical (-2.802, $p=0.0147$), Bodily Pain (-2.498, $p=0.009$), General Health (-3.742, $p=0.0034$), Vitality (-3.445, $p=0.0027$), Social Functioning (-3.4306, $p=0.0073$), Health Transition (0.2367, $p=0.0191$), PCS (-2.5304, $p=0.0115$) and MCS (-2.736, $p=0.0398$). No statistically significant difference existed between W and WO groups in Physical Functioning (-1.918, $p=0.1042$), Role Emotional (-2.302, $p=0.123$) and Mental Health (-2.287, $p=0.0776$).

Discussion

Both cohorts experienced improvements in HRQL scores, although the W group experienced less improvement compared to the WO group. This information will help surgeons educate patients with cervical spine surgery history about risks for inferior outcomes but warrants further research.

Conclusion

Patients with a prior history of cervical spine surgery experienced less improvement in patient-reported outcomes compared to those patients without a history of cervical spine surgery.