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OUTCOMES AND COMPLICATIONS OF FUSIONS FROM THE CERVICAL SPINE TO THE PELVIS: SERIES OF 46 CASES WITH AVERAGE 2.7 YEAR FOLLOW UP

Introduction

Spinal Reconstruction revisions can result in fusions that extend from the cervical spine to the sacrum/pelvis. The purpose of this study is to determine the outcomes in this subset of pts utilizing the SRS-22r, ODI and NDI HRQOLs.

Methods

Pts from 2003-2014 with fusions resulting in a UIV from any level in the cervical spine and LIV of Sacrum/Pelvis were included in the study. Those with infectious or acute trauma related deformities were excluded. Pt demographics, medical history, diagnosis, operative procedure and HRQOLs were analyzed. Student's T-test, a Kruskal-Wallis and χ^2 Test was used as appropriate; the level of significance was set at $p < 0.05$ for all tests

Results

55 pts met inclusion for the study and 46 (84%) had sufficient data for analysis. The avg age was 44 and avg. fu time of 2.7 years. Proximal Junctional Kyphosis (PJK) was the most common indication for fusion to the cervical spine (28%), followed by kyphosis (21%) and kyphoscoliosis (15%). The most common UIV was C2 (28%) or C7 (28%). There was a significant improvement in radiographic outcomes with an average 31-degree correction in maximum kyphosis and a 3.3cm improvement in SVA. Complications data was available in a subset of 28 pts. In these pts, the rate of all types of complications was 71%. The incidence of major complications was 39.3% and minor complications 53.6%. The rate of medical complications was 61% while the rate of surgical complications was 43%. There was an improvement of the SRS score from 3.0 ± 0.7 pre-operatively to 3.5 ± 0.9 at the most recent follow up visit ($p < 0.01$). Improvement was greatest for the SRS Mental Health (Δ SRS Mental Health = 0.9, $p < 0.01$) and Pain (Δ SRS Pain = 0.6, $p < 0.01$) domains. There were no significant differences in pre and post-op scores for the NDI or ODI.

Discussion/Conclusion

When necessary, fusions that extend from the Cervical Spine to the Pelvis can result in improvements in HRQOLs. Our data demonstrated a significant improvement in SRS-22r outcomes scores and radiographic parameters with operative intervention in this subset of patients.