

Abstract #1239.docx

CERVICAL DEFORMITY SURGERY DOES NOT RESULT IN ACUTE POST-OPERATIVE DYSPHAGIA: PRELIMINARY RESULTS FROM A PROSPECTIVE CERVICAL DEFORMITY STUDY

Introduction

Although dysphagia after cervical spine surgery has been described, it has focused mostly degenerative cases. We aimed to delineate dysphagia in patients undergoing surgery for cervical deformity.

Methods

Prospective enrollment of operative cervical deformity (CD) pts were followed with dysphagia as one study outcome. Inclusion criteria: cervical kyphosis (CK) $>10^\circ$, cervical scoliosis (CS) $>10^\circ$, C2-7 SVA $>4\text{cm}$ and/or chin-brow vertical angle (CBVA) $>25^\circ$. Demographic, operative and radiographic variables were analyzed with the SWAL-QOL to measure dysphagia.

Results

52 patients were included. The avg. age was 62 yrs. BMI and Charlson Comorbidity Index correlated with baseline swallowing dysfunction ($r=0.33$, 0.35 $p=0.02$, 0.01). Pts with prior ACF had worse pre-op SWAL-QOL (68 vs. 82, $p=0.02$), ($r=0.30$, $p=0.04$) while those who had undergone a prior PCF did not (74 vs. 79, $p=0.42$). Surgery did not result in a decline in SWAL-QOL at 3 mo. FU ($p=0.25$) and 50% had improved scores. The # of levels for ACF averaged 3.8 (range 2-6) and did not correlate with 3 mo SWAL-QOL score ($p=0.07$) or change with surgery ($p=0.29$). There was no correlation between the # of levels with PCF ($p=0.93$) and no difference in post-op SWAL-QOL scores based on UIV, surgical approach or osteotomy. Steroids were used in 58% but there was no difference in SWAL-QOL scores (74 vs 80, $p=0.78$). Similarly, posterior BMP use did not affect total SWAL-QOL scores (73 vs. 77, $p=0.11$); SWAL-QOL correlated with global measures of disability such as NDI ($r=0.51$, $p<0.01$) and EQ5D ($r=0.51$, $p<0.01$) and mJOA ($r=0.33$, $p=0.02$).

Discussion

Surgery did not result in a decline in SWAL-QOL scores in the 3 month post-op period. There was no correlation between the # of levels fused with dysphagia and no difference in post-op SWAL-QOL scores based on UIV, surgical approach or osteotomy. Swallowing dysfunction correlated with the NDI, EQ5D and mJOA.

Conclusions

Surgery for correction of CD did not result in significant dysphagia in the acute post-operative period as measured by the SWAL-QOL in this prospective series of CD patients.