



Dysphagia in Standalone versus Conventional Anterior Cervical Discectomy

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Introduction

Dysphagia is an extensively described complication of anterior cervical discectomy and fusion. It has been proposed that mechanical irritation, additional dissection or displacement of the esophagus by plate placement may contribute to a greater incidence of post-operative dysphagia. The aim of this study was to compare dysphagia symptoms and pain severity of standalone cage systems versus interbody devices in combination with an anterior plate.

Methods

A retrospective cohort study identified 377 consecutive patients (standalone, n=211; plate and cage, n=166) meeting the study criteria between the years 2014 to 2015. Patient-specific characteristics and surgical characteristics and Numeric Pain Rating Scale (NRS) scores were collected preoperatively. Complication and readmission rates, the Dysphagia Disability Index (DDI), and NRS scores were collected at one year and two years post-operatively.

Results

Both groups were similar with respect several comorbidities including the Charlson score, and pre-operative NRS scores (5.3 ± 2.1 versus 5.4 ± 1.9 in stand alone and plate and cage groups). The stand along group experienced a higher rate of symptomatic non-union with reoperation but this did not achieve statistical significance (9% versus 4%; $p=.07$). There was a significantly greater improvement in neck pain scores in the plate and cage group after one and two years post-surgery compared to the stand alone group (2.3 and 3.1 versus 1.6 and 1.5, respectively; $p<.01$). Post operative DDI scores were similar at 2 years post-surgery (9.4 ± 11.9 versus 9.5 ± 11.7).

Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the difference of Standalone versus Conventional Anterior Cervical Discectomy in terms of DDI and NRS , 2) Discuss, in small groups why Standalone devices might have a higher NRS score postoperatively.

References

Conclusions

Chronic dysphagia scores are comparable between standalone cage systems and interbody grafts with plating. We observed a greater improvement in neck pain and a lower incidence of nonunion in the group that underwent interbody graft and plate placement at followup. Further research is needed in order to determine factors that may lead to a higher rate of non union for patients undergoing stand alone cage placement.