



Comparative Analysis of Standard Discectomy With Extraforaminal Discectomy

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Introduction

Discectomy is one of the most common spine procedure performed and has been supported by several long-term studies. Relatively low complication rates are reported, though reoperation rates are as high as 30%. Standard discectomy (SD) and extraforaminal discectomy (ED) are the most frequently performed procedures for lumbar herniated nucleus pulposus (HNP), though few studies have compared these procedures with regard to postoperative complications using a large database.

Methods

This was a retrospective analysis of prospectively collected data from the NSQIP database. Patients > 18 years old undergoing elective SD or ED between 2005 and 2012 were included. Patient baseline factors, perioperative data, preoperative labs, and postoperative events were recorded. Patients in the two cohorts were compared using multivariate logistic regression analysis with significance defined as $p < 0.05$. Odds ratio (OR) was calculated with a 95% confidence interval.

Results

During the study period 4241 patients underwent SD and 157 underwent ED. Patients undergoing ED were slightly younger (57.4 vs 55, $p=0.03$) and more likely to be done as an outpatient procedure (45.8% vs 58.0%, $p=0.006$). Patient comorbidities were not significantly different between the two groups (all $p>0.05$). Rate of any complication was 1.9% in the SD group and 1.3% in the ED group with no deaths reported. Higher rates of operative time > 4 hours was noted comparing SD to ED (1.7% vs 4.5%, $p=0.01$), though when the cohorts were propensity matched this was non-significant ($p=0.07$). All postoperative complications, mortality, reoperation, unplanned readmission, length of stay (LOS), rate of graft failure and blood transfusion were similar between the two cohorts ($p>0.05$).

Learning Objectives

By the conclusion of this session, participants should be able to differences between patients and outcomes undergoing standard vs extraforaminal discectomy.

Conclusions

This investigation provides a comparison of patients undergoing elective SD and ED from a large database and demonstrates low postoperative complication rates. Patients undergoing ED tended to be younger and were more likely to be performed in an outpatient setting, though complications and reoperation rates were similar between the two groups in the immediate postoperative phase.