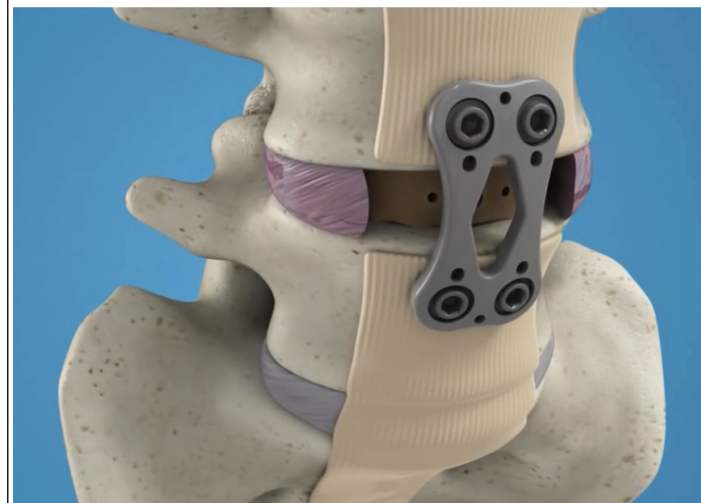


Introduction

Anterior lumbar interbody fusion (ALIF) has been increasingly performed as an outpatient procedure due to advances in minimally-invasive techniques. However, its safety profile in the outpatient setting has not been documented. Therefore, the purpose of this study was to compare the thirty-day rates of post-operative and post-discharge complications between outpatient and inpatient ALIF.

Methods

Patients who underwent ALIF were identified from the 2011 – 2016 American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database. Outpatient status was defined as a length of stay equal to 0 days whereas inpatient status was defined as a length of stay greater than or equal to 1 day. Propensity-score matching (PSM) was used to account for patient characteristics with confounding potential, and the rates of postoperative and post-discharge complications were compared between cohorts via univariate analysis tests. Significance was assessed at $p < 0.05$.



Images obtained from Altantic Spine Center.

Learning Objective #2

- recognize the frequency with which different complications occur before or after discharge

Results

85 outpatient cases (52.98 +/- 14.42 years, 40 females) and 6,587 inpatient (55.06 +/- 13.61 years, 3534 females) cases of ALIF were included in this study. Before PSM, outpatient cases had a lower rate of blood transfusions (1.2% vs 7.9%, $p=0.014$) and a reduced relative risk of any complication (RR = 0.192, 95% CI: 0.049 – 0.755) postoperatively. After PSM, outpatient cases still had a lower rate of blood transfusions (1.2% vs 8.7%, $p=0.012$) and a reduced relative risk of any complication (RR = 0.189, 95% CI: 0.047 – 0.759) postoperatively. There were no significant differences in the rates of post-discharge complications between cohorts before or after PSM.

Conclusions

When undertaking standalone ALIF, patients may be safely discharged on the same day of the procedure if excessive bleeding, commonly encountered as a result of vascular injury, can be avoided. Other short-term complications are similar to those of inpatient ALIF.