



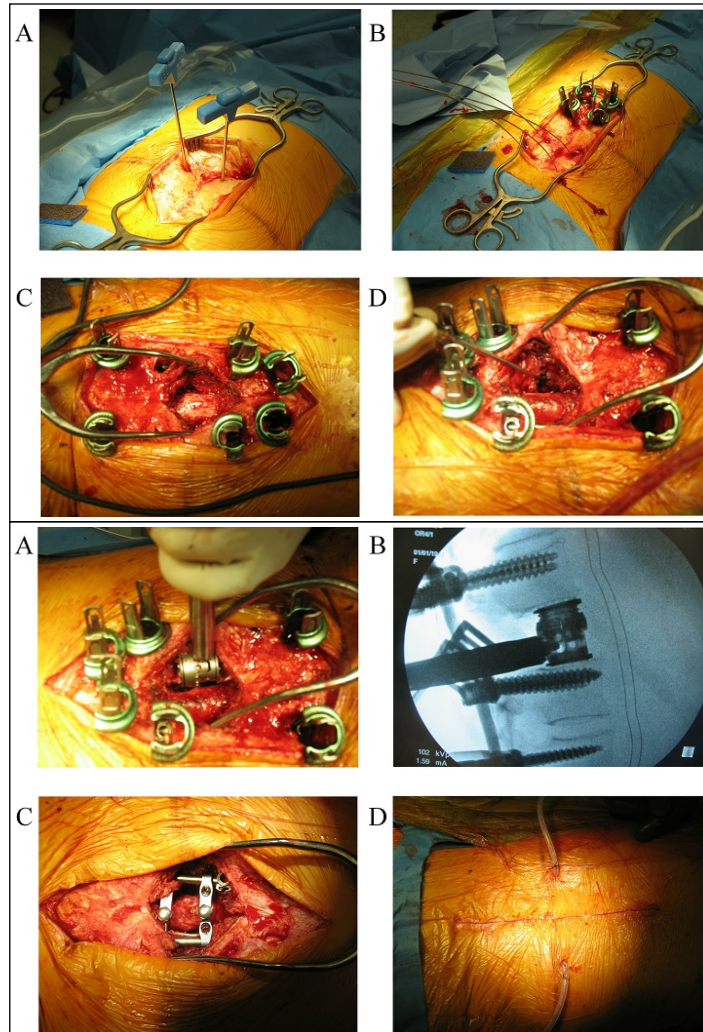
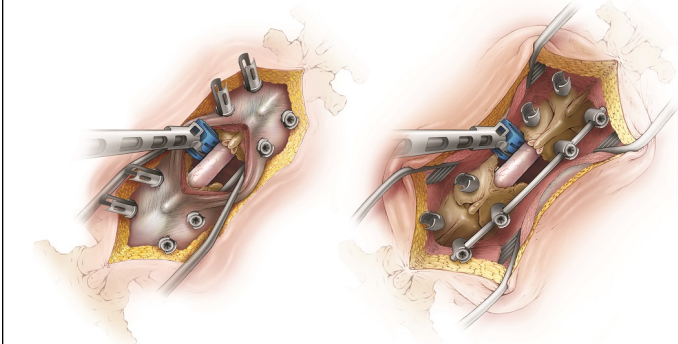
Surgical Treatment of Metastatic Spinal Tumors via Corpectomy and Cage Reconstruction: Does the Mini-Open Approach Offer Benefits Over a Standard Open Approach?

Darryl Lau; Dean Chou M.D.

Department of Neurological Surgery, University of California, San Francisco



Open and Mini-open Corpectomy



Results

49 patients were included: 21 mini-open and 28 open. Mean age was 57.9 years, and 59.2% were male. The two groups were well matched. There were no significant difference in operative time between the open and mini-open groups (413.6 minutes vs. 452.4 minutes, $p=0.329$). Compared to the open group, the mini-open group had significantly less blood loss (1697.3 cc vs. 917.7 cc, $p=0.019$) and significantly shorter length of hospital stay (11.4 days vs. 7.4 days, $p=0.001$). There was a trend towards a lower perioperative complication rate in the mini-open group (9.5%) compared to the open group (21.4%), but this was not significant ($p=0.265$). At follow-up, there were no significant differences in ASIA score ($p=0.342$), complication rate after 30-days ($p=0.999$), and surgical revision rate ($p=0.803$). The open approach had a higher overall infection rate of 17.9% compared to the mini-open approach (9.5%), but this was not statistically significant ($p=0.409$).

Conclusions

The mini-open transpedicular corpectomy is a safe and feasible procedure and offers less blood loss and shorter length of hospital stay. The mini-open corpectomy also trended towards lower infection rate and lower complication rate.

Learning Objectives

By the conclusion of this session, participants should be able to:

1. discuss the advantages to the mini-open approach when performing corpectomy for spinal metastasis

Introduction

There has been a shift of practice to utilize posterior-only approaches to performing thoracolumbar corpectomies for spinal metastasis. Most are still done through an open approach. This study compares outcomes of patients who undergo mini-open vs. traditional open transpedicular corpectomy for thoracic spinal metastasis.

Methods

A consecutive cohort of adult patients from 2006 to 2013 who underwent transpedicular corpectomy in the thoracic spine for spinal metastasis was retrospectively identified. The mini-open transpedicular corpectomy was performed with a midline facial incision only over the level of corpectomy and percutaneous instrumentation 2 levels above and below. Bivariate statistics were employed to compare perioperative and follow-up outcomes between open and mini-open surgery.