

# Endoscopic Transsphenoidal Surgery Confers No Additional Surgical Advantage Relative to a Traditional Sublabial Approach

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## Introduction

Transsphenoidal endoscopy has gained popularity as a surgical treatment option in patients with pituitary adenomas. We studied patients who were operated on with pituitary Rathke's cysts from 2010 to 2016 to determine whether an endoscopic surgical approach conferred an advantage when compared to a traditional, transsphenoidal technique.

## Methods

We analyzed data from our IRB approved, prospectively collected pituitary surgery database: this study compared Rathke's cleft cyst patients after endoscopic versus sublabial approach with respect to operating time, hospital length of stay, and complications such as diabetes insipidus, and SIADH, or bleeding in surgeries to remove pituitary adenomas. The choice of surgical method was not based on patient pathology or neurosurgeon preference, thus minimizing bias.

## Results

This study evaluated a total of 28 surgeries (15 females, 13 males, ages ranged from 16-69 years of age) to remove Rathke's cleft cysts. Of these, 57% used transsphenoidal endoscopy and 43% used a traditional sublabial approach.

No significant difference in operating time was noted (average values: 70 minutes for sublabial approach, 80 minutes for endoscopy.) Similarly, the length of stay in the hospital also comparable (average values: 40 hours for sublabial approach, 27 hours for endoscopy). Of the six patients who experienced transient post-operative complications, five were endoscopic patients ( $p =$  not significant).

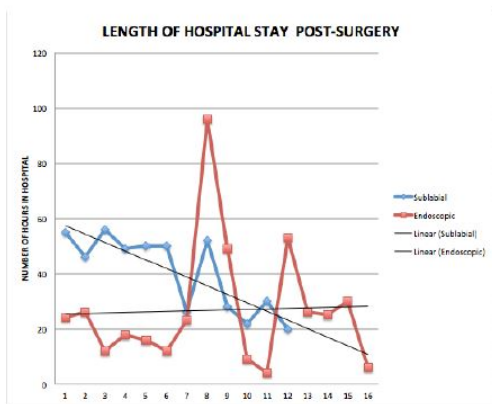
## Conclusions

Both surgical methods present equally advantageous options for pituitary tumor removal. Selective use of each technique may vary based on clinician preference, previous training or current method of practice, however this study finds no evidence that endoscopy shows a favorable difference in patient outcome or provides a more cost effective solution than a traditional sublabial approach.

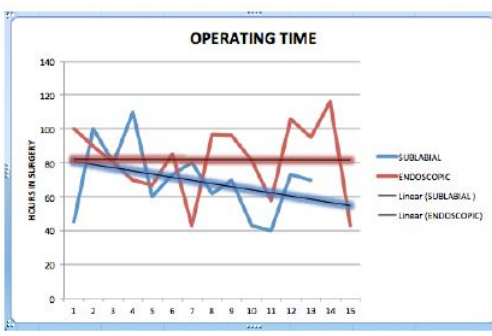
## Learning Objectives

By conclusion of this session, participants should be able to 1) Describe the importance of the endoscopic and sublabial techniques in the removal of pituitary adenomas, 2) Discuss in small groups possible advantages each technique confers relative to the other and 3) Identify an effective treatment for the removal of pituitary tumors relative to patient recovery time, potential post-operative complications and cost effectiveness of each method

## Length of Post-Surgical Hospital Stay



## Operating Time



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