

Sinonasal Morbidity After Endoscopic Endonasal Pituitary Surgery With Middle Turbinate Resection

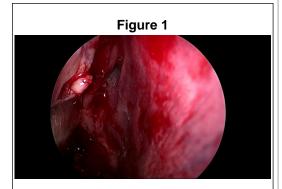
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Introduction

Endoscopic endonasal pituitary surgery is becoming the standard approach. The need for unilateral middle turbinate resection during the endonasal approach remains controversial and the long term implications for sinonasal function are unknown. This study aims to quantify sinonasal morbidity after endoscopic pituitary surgery using the validated SinoNasal Outcome Test (SNOT).



Wide access to sphenoid os after middle turbinate resection

Methods

A prospective study of 32 consecutive patients undergoing endoscopic endonasal pituitary surgery for pituitary adenoma. Patients undergoing revision surgery or those patients with giant macroadenomas requiring naso-septal flap reconstruction were excluded. In all cases the right middle turbinate was resected at the beginning of the procedure and the harvested free turbinate mucosal graft used to close the sella defect. Patients were assessed at 6 weeks and 6 months post-operatively using the SNOT questionnaire and the use of nasal rinses and antibiotics recorded.

Results

The mean SNOT score was 32 at 6 weeks and 23 at 6 months (p=0.001). No patients had CSF leak post-operatively. 4 (12.5%) patients required antibiotics at 6 weeks and 4 patients required nasal saline rinses beyond 6 weeks. SNOT scores above 4 occurred mainly in the domain related to sleep function and persisted at 6 months in 9 (28%) patients. No patients reported persistent nasal symptoms at 6 months.

Conclusions

Middle turbinate resection has minimal adverse effect on sinonasal function with most patients reporting minimal nasal symptoms beyond 6 weeks. No patients required nasal debridement or additional ENT follow-up. Questions related to sleep function may reflect other underlying medical factors, such as sleep apnea and may not be impacted by surgical intervention. Middle turbinate resection improves access and provides material for reconstruction of the sella floor, without causing additional nasal morbidity.

SNOT 22



Example of the SNOT 22 questionaire sent to patients

Learning Objectives

By the conclusion of this session, participants should be able to discuss the approach for endoscopic endonasal transphenoidal pituitary surgery and it's impact on nasal function

References

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