



## Video Abstract

# Endoscopic transsphenoidal resection of a recurrent petrous apex cholesterol granuloma: Operative video

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## ABSTRACT

**Background:** Cholesterol granulomas (GC) of the petrous apex are benign cystic lesions that occur due to a foreign body reaction to blood by-products and cholesterol crystals. They cause erosion and expansion of the petrous apex and lead to cranial nerve deficits.

**Case Description:** We present an operative video of a 28-year-old male whose work-up for horizontal diplopia revealed a right petrous apex GC. He originally underwent a subtemporal and later a transmastoid approach at outside institutions before he presented to us with diplopia due to recurrence. An endoscopic transsphenoidal transclival approach was done for drainage and resection of the GC. The patient did well and his diplopia resolved. A follow-up MRI showed no recurrence of the granuloma.

**Conclusion:** This case illustrates an endoscopic transsphenoidal transclival approach for a recurrent petrous apex CG, which may lead to symptom resolution if done in a timely fashion.

**Keywords:** Cholesterol granuloma, Diplopia, Endoscopy, Operative video, Transsphenoidal resection

### [Video 1]-Available on:

www.surgicalneurologyint.com

### Annotations<sup>[1]</sup>

- 0:10: History & Physical
- 0:28: Preoperative imaging
- 0:53: Elevating the mucoperiosteum
- 1:09: Removal of sphenoid septations
- 1:16: Drilling of the clivus
- 1:32: Opening of the granuloma capsule
- 1:45: Debridement of cyst contents
- 2:02: Elevating a nasoseptal flap
- 2:34: Placement of Rains stent
- 2:49: Post-operative CT
- 3:06: Follow-up MRI

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### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

### REFERENCES

1. Roemer S, Maeder P, Daniel RT, Kawasaki A. Sixth nerve palsy from cholesterol granuloma of the petrous apex. *Front Neurol* 2017;8:48. Available from: <https://doi.org/10.3389/fneur.2017.00048>. [Last accessed on 2020 Jan 28].

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