

## Introduction

- Olfactory groove meningiomas (OGMs) account for 8-13% of intracranial meningiomas. They often present late with anosmia, cognitive changes, and visual decline.
- The anterior communicating artery (ACoM) is the most common site of intracranial aneurysms. ACoM aneurysms carry a relatively high risk of rupture, approaching that of posterior circulation aneurysms.
- The coexistence of an OGMs and an ACoM aneurysm is rare and usually coincidental.

## Objective

- To provide a step-by-step demonstration of the surgical technique for concomitant resection of an OGM and clip ligation of an adjacent ACoM aneurysm via the anterior interhemispheric corridor.

## Case Presentation

- 67-year-old woman with recent cognitive decline (anterograde amnesia, confusion, confabulations) and gait instability.
- Brain imaging showed a large OGM with an adjacent incidental ACoM aneurysm.
- Concomitant surgical resection of the tumor and clip ligation of the aneurysm were achieved via a bifrontal craniotomy and an anterior interhemispheric approach.
- Postoperative MRI and DSA confirmed gross total tumor resection and complete aneurysm obliteration.
- Uneventful postoperative course, discharge to rehab.
- 3-month follow-up visit: mental status significantly improved, able to ambulate independently, but some persistent anterograde amnesia.

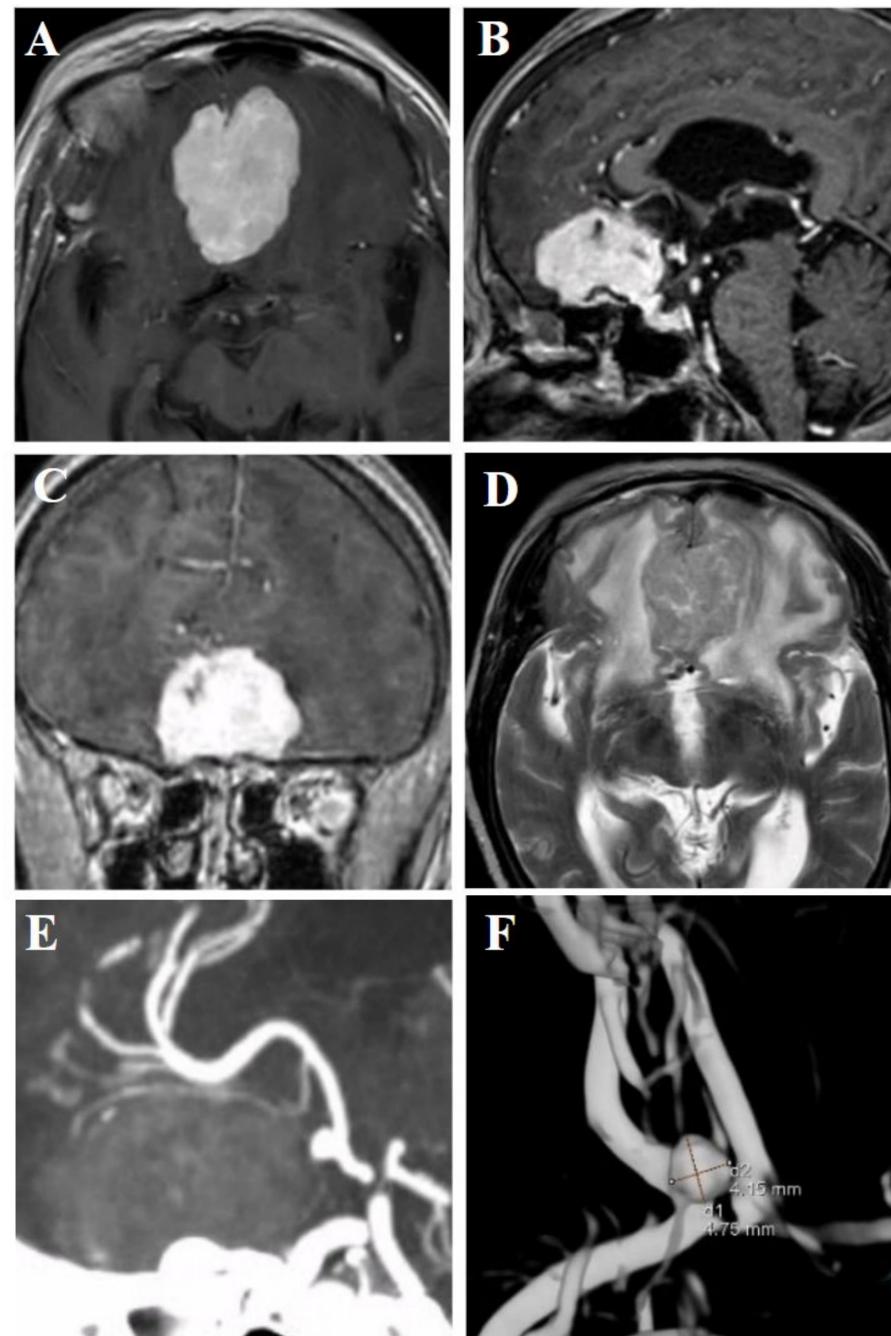


Figure 1 - A-D, Brain MRI reveals a large extra-axial, avidly enhancing anterior cranial fossa lesion, consistent with an OGM. Note the substantial vasogenic edema in both frontal lobes. E-F, Head CTA (E) and cerebral DSA (F) show a 5-mm, anteriorly projecting ACoM aneurysm located immediately posterior to the mass lesion. Note the fenestration of the anterior communicating artery on DSA.

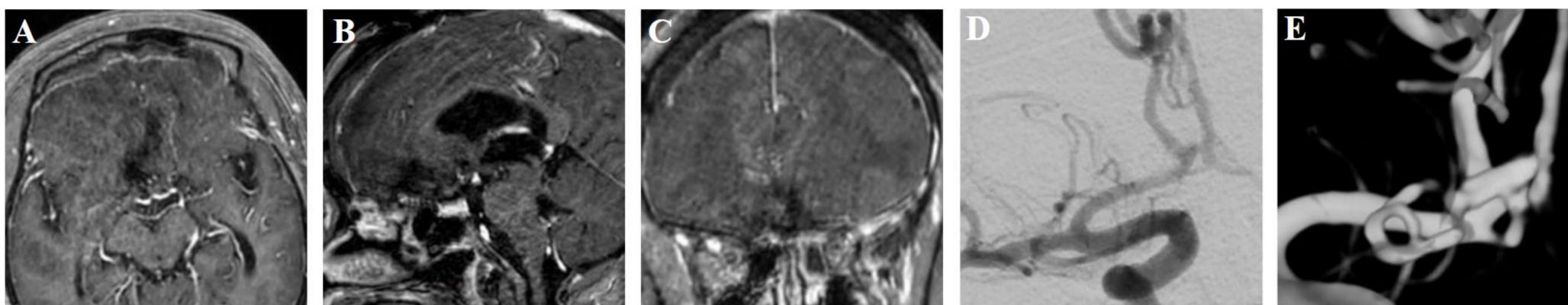


Figure 2 - A-C, Postoperative brain MRI demonstrates gross total resection of the anterior cranial fossa lesion. D-E, Postoperative cerebral DSA confirms complete aneurysm obliteration by clip.

## Conclusion

- Concomitant resection of OGMs and clip ligation of adjacent aneurysms of the ACoM complex can be safely and effectively achieved via the anterior interhemispheric approach.
- A deep understanding of the anatomy of the anterior cranial fossa and suprasellar space is an essential prerequisite.