

## ANEURYSM ENCASED IN ANTERIOR SKULL BASE MENINGIOMA : REVIEW OF TWO CASES

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### BACKGROUND

The coexistence of aneurysms and meningiomas is rare, and encasement of an aneurysm within a meningioma even more so. The coexistence of both lesions is not only a diagnostic challenge but also has important therapeutic implications. We analyzed our experience of two such patients, both were incidentally detected with carotico-ophthalmic segment aneurysm while operating anterior skull base meningioma (Tubercullam Sella and Olfactory groove meningioma). Both patients were successfully treated by surgical clipping in the same sitting. Although a rare occurrence, this case suggests the possibility of asymptomatic ICA aneurysms located within anterior skull base meningiomas, Recognition of this possibility may be prudent in order to avoid inadvertent vascular complications during meningioma resection.

### INTRODUCTION

Few case reports are published in the literature documenting the association between brain tumours and aneurysms

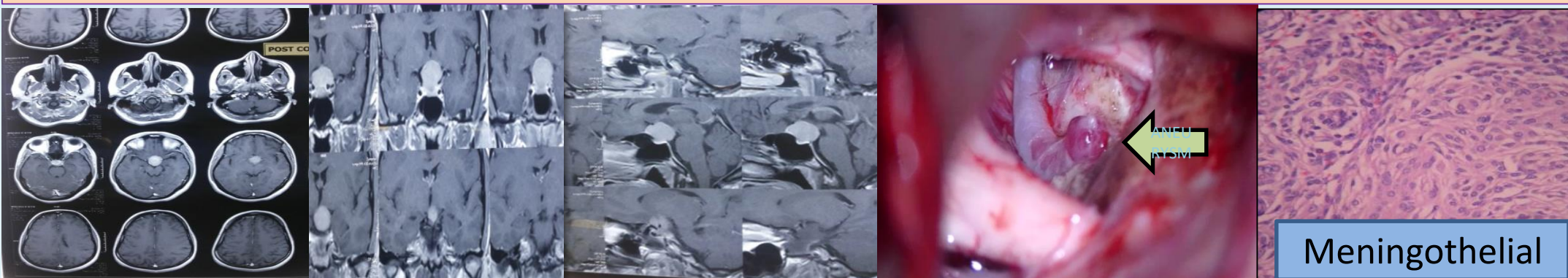
Incidence is estimated to be between 0.3-0.7%.

Meningioma is the commonest tumor showing such an association with aneurysm.

Co-existence of both lesions is not only a diagnostic challenge but also has important therapeutic implications

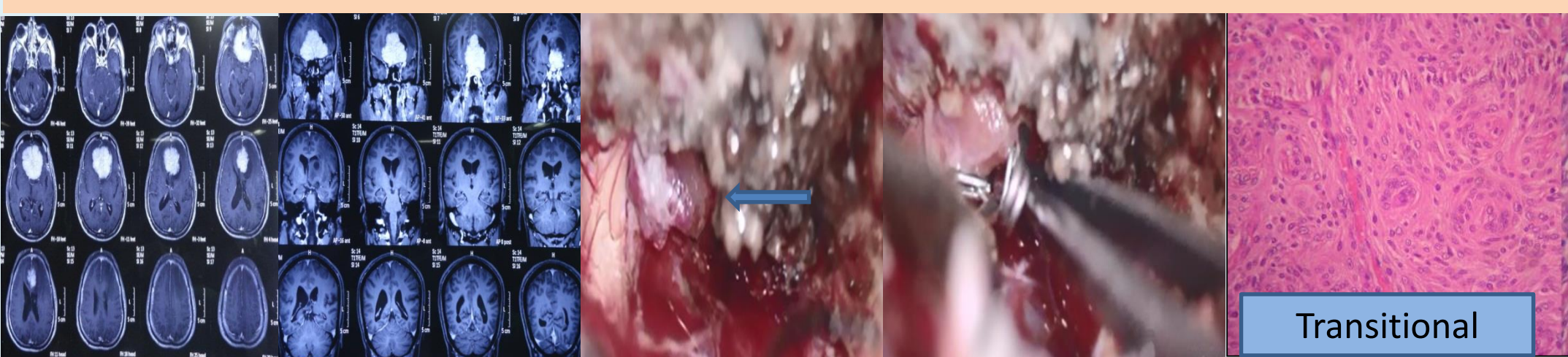
Case1: 42 yr. lady presented with headache & bilateral visual disturbance – left > right. No hormonal symptoms . Surgery : LEFT FTO CRANIOTOMY AND TUMOR EXCISSION

### TUBERCULUM SELLA MENINGIOMA WITH INCIDENTAL CAROTICO OPHTHALMIC SEGMENT ANEURYSM



CASE 2 : 64 years gentleman with history of headache, anosmia, visual disturbances & seizure (GTCS). Surgery : Extended bi lateral basic frontal craniotomy and tumour excision

### OLFACTORY GROOVE MENINGIOMA WITH INCIDENTAL CAROTICO OPHTHALMIC SEGMENT ANEURYSM



### DISCUSSION

The association between intracranial meningioma and aneurysm was first reported by Arieti et al

### HYPOTHESES

KANDEL ET AL : Increased regional blood flow associated with vascular meningiomas, cannot explain contra lateral aneurysms

JAVALKAR ETAL ; Damage that the meningioma caused to the wall of the artery based on tumour adhesion to the arterial adventitia

PIA ET AL : dysgenetic factor Genetic disorder - (Klippel-Trenaunay syndrome with multiple meningiomas and arterial aneurysms).

MRA and CT angiograms - Non-invasive to pick up any incidental aneurysms

### IS ANGIOGRAM REQUIRED IN ALL PATIENTS WITH MENINGIOMAS? → NO

HANDA ET AL. : out of 956 patients with brain tumours, only 7 had an associated aneurysm (0.7%), out of which only 1 case was meningioma

TAYLOR ATAL : in his series of 1500 cases of verifiable primary intracranial tumours could find only five tumours with aneurysms (0.3%), out of which two were meningiomas

**ONLY FOR --EMBOLISATION & ENCASEMENT OF VESSEL**

**our series of 416 intracranial meningiomas only two were associated with aneurysms (0.48%)**

### CONCLUSION

1. If the aneurysm is ipsilateral and in close proximity to meningioma, both lesions can be managed simultaneously
2. If the aneurysm is located contra lateral , they can be dealt with by either surgery or endovascular procedures
3. Routine angiogram not required for all patients with meningioma