

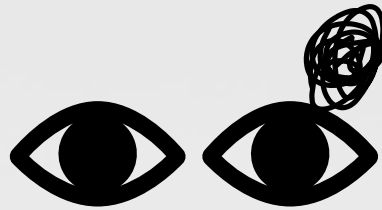
Superficial Temporal Artery Pseudoaneurysm Post Blepharoplasty: Case Report

Al-Habsi Asaad, Al-Ghafri Alyaqdan
Oman Medical Specialty Board

History



83 years old.



2 months painless left upper lid swelling

- Immediate after eyelid edema subside post –op
- Increasing in size.
- Inflamed and tender initially , at presentation asymptomatic.

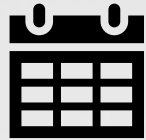
No trauma , no systemic masses or previous cancer .

History



May 2021

4 lids blepharoplasty
(Treatment Abroad)



June 2021

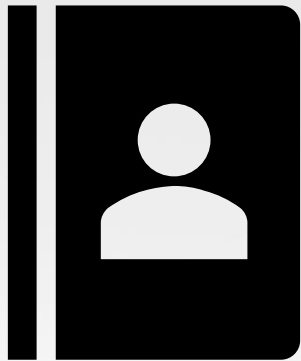
Sutures removal
(Another Country)



September 2021

Present for the new complain
In our Hospital.

History



PMHx

- DM and HTN
- IHD

On Aspirin

Examination



Left subcutaneous , sub-brow lesion , in the superotemporal pre-septal area.



Large, 2.5x1.5 cm.



Smooth, firm, non-tender, oval shaped ,mobile.

- Eyelid: Left Mechanical ptosis.
- Rest of eye exam unremarkable .

Post Blepharoplasty



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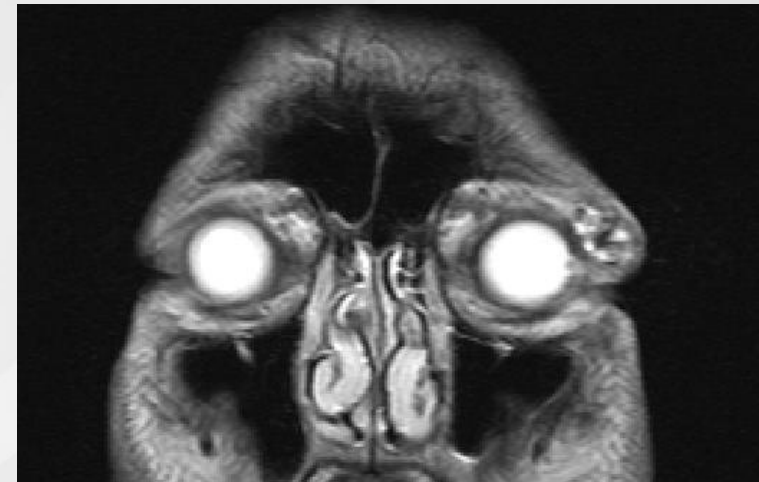
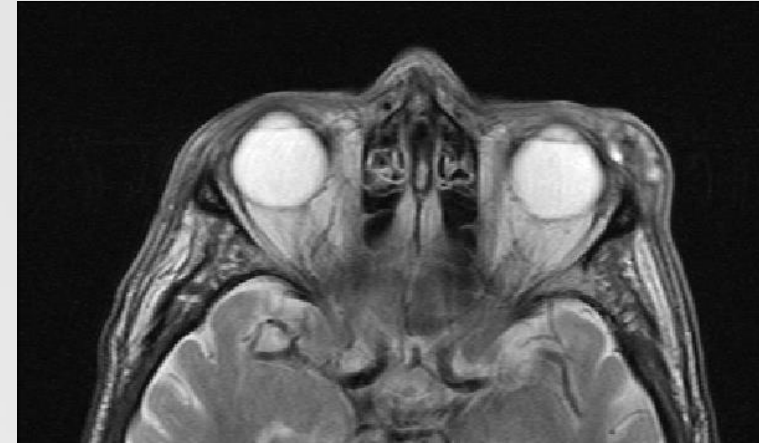


Work-up and management



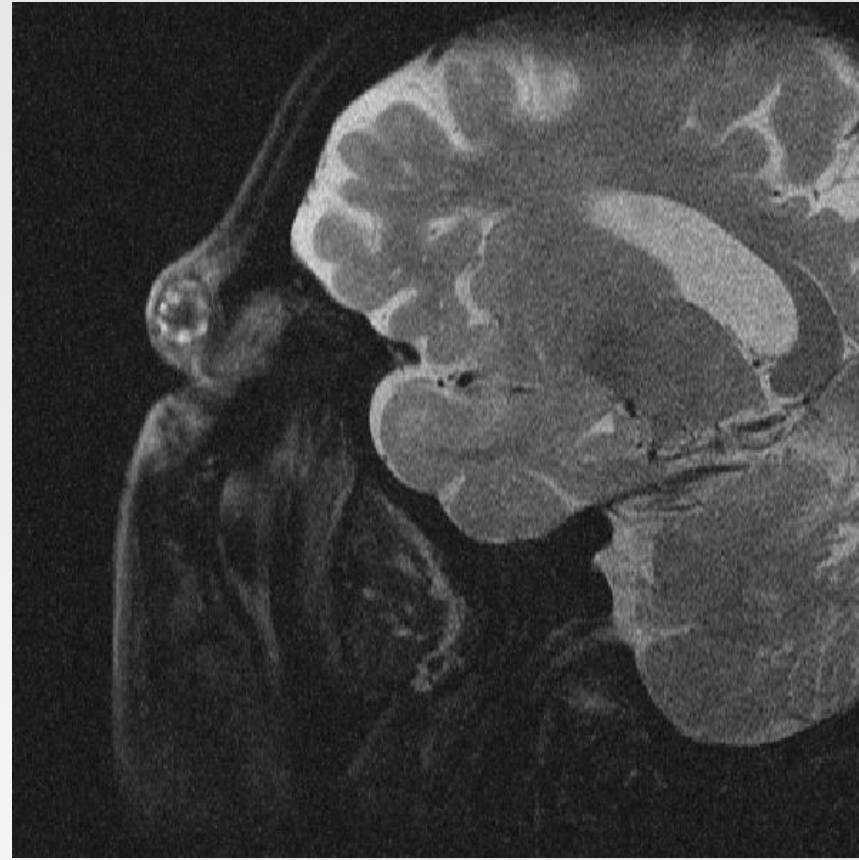
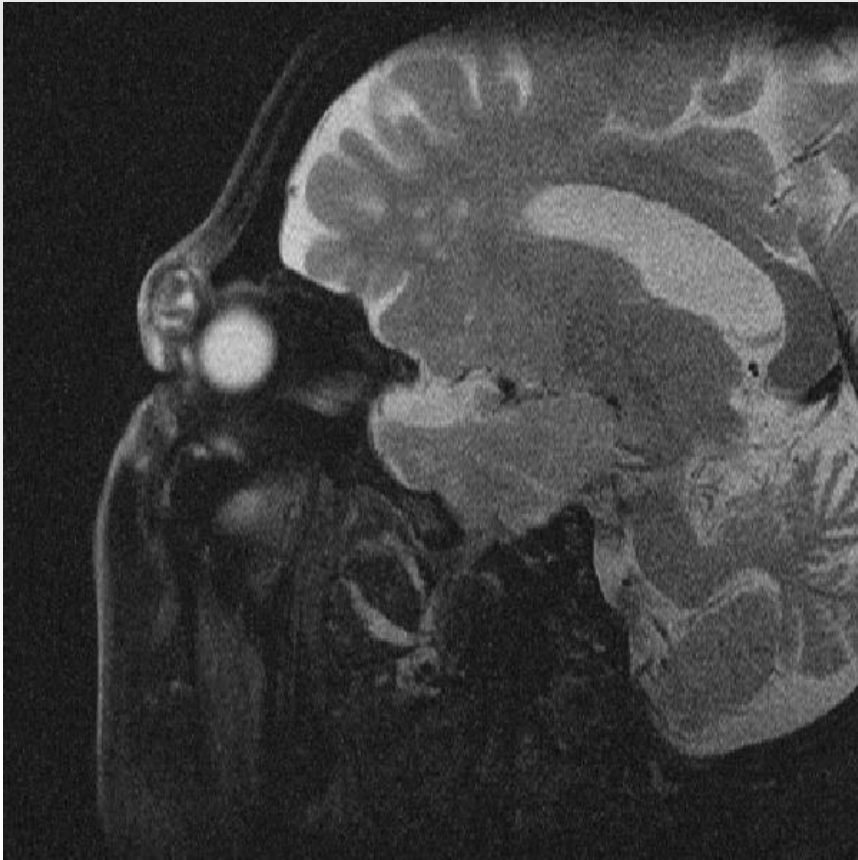
Uploaded MRI done in private

- Basic work up – done in Local health center (normal)
- Planned for : Left upper lid mass excision 30/09/2021





MRI July 2021



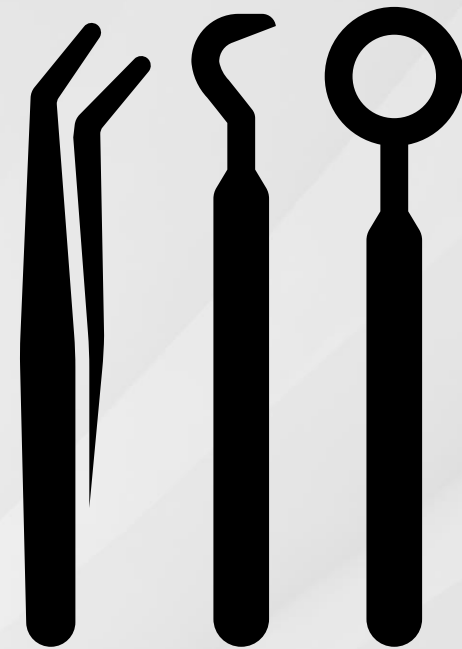
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Left Upper Lid Mass Excision



30/09/2021





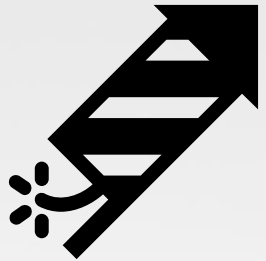
- Findings : well-defined mass sperated fully from surrounding structures.
- Histopathological results: Organized thrombusd



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Follow up 10/10/2021



- Bleeding from the wound after the procedure .
- Developed swelling and tenderness in the same area .
- Aspirin was stopped pre-op , re-started after 1 day.
- Thrombocytopenia.



Follow up 10/10/2021

Exam: left (complete) mechanical ptosis due to LUL large swelling.





Follow up 10/10/2021



Plan :

- Aspiration of 15ml blood done at minor OR
- Pressure bandage for a week
- Stop aspirin
- Referred to physician (hematology) for thrombocytopenia
- Planned for CT orbits



CT 18/10/2021



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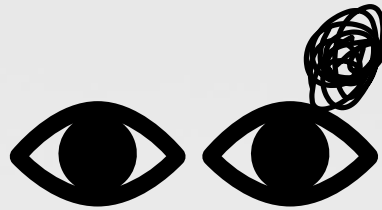
CT Diagnosis

Unenhanced CT scan show **left orbit pre-septal anterior superotemporal localised soft tissue swelling** that show homogenous high attenuation (HU 36) and measures about **4.5 x 2.3 x 3.4 cm in AP, Trans and CC dimensions. CT angiography show 9.5 mm contrast filled sac communicating with the adjacent prominent artery located superficially about 1.6 mm deep to the skin.** The origin of this artery could not be traced, but could be from the frontal branch of the **left superficial temporal artery**. There is no evidence of active arterial contrast extravasation.

Summary



83 years old.



2 months painless left upper lid swelling

Post 4 lids blepharoplasty

In view of patient history and described CT findings, the left pre-septal supero-temporal orbital swelling is likely to represent **hematoma with evidence of superficial pseudo-aneurysm with no active arterial contrast extravasation**



Thrombocytopenia

Management





Hematology review

Worked up for DDx:

- TTP (mild)
- Increase platelets consumption due to eyelid aneurysm
- Malignancy

Treated with platelet and IVIG





Interventional radiology review

- Head and neck angiogram and embolization .
- Findings:
 - There was no filling of left periorbital pseudoaneurysm .
 - US showed complete thrombosed pseudoaneurysm.
 - Frontal branches of Left superficial temporal artery embolized .
 - No other aneurysm seen during the procedure .



Follow up 23/12/2021



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CT 23/12/2021



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The Final diagnosis

Left pseudoaneurysm of frontal branch of superficial temporal artery post blepharoplasty .



How common ?

Rare

Superficial temporal artery aneurysms

Iraklis I. Pipinos, MD, Christos D. Dossa, MD, and Daniel J. Reddy, MD,
FACS, *Detroit, Mich., and Staten Island, N.Y.*

Few superficial temporal artery (STA) aneurysm reports exist in the literature (187 cases during the past 250 years),

- The temporal artery aneurysms represent 1% of arterial aneurysms.
- The pseudoaneurysms rank first (95%) while true aneurysms are extremely rare (5%)



Location

Most STA aneurysms involve the **anterior branch** of the STA rather than the proximal STA or its posterior branch.

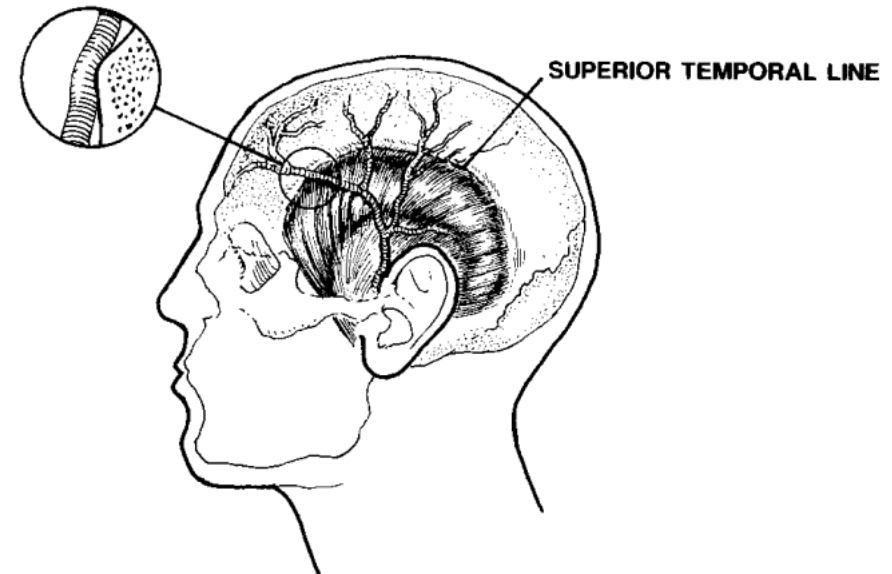


Fig. 1. Aneurysms most commonly involve the segment of anterior branch of superficial temporal artery, which traverses the superior temporal line.

Causes

- Any blunt or penetrating trauma to the side of the head .
- Iatrogenic post surgery .
- Congenital or degenerative.
- Spontaneous development: rare



CASE REPORT

Superficial temporal artery pseudoaneurysm following facial trauma

James Johnston, Carl Mark Sullivan



Figure 1 Right forehead swelling which developed 11 days after falling and sustaining a head injury.

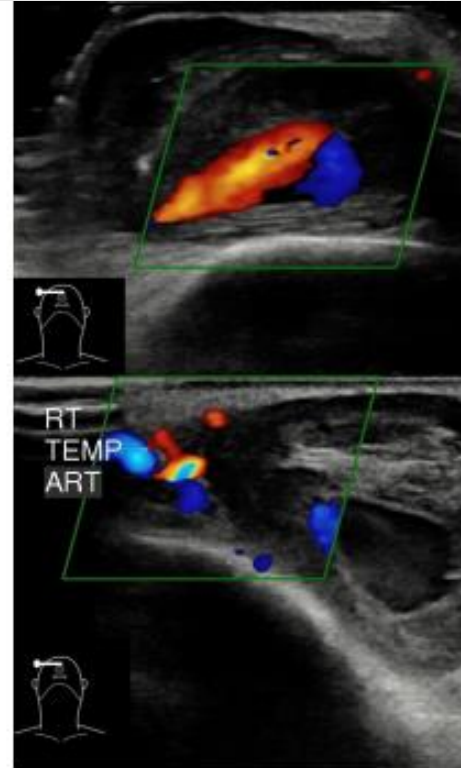


Figure 2 Mixed echogenicity lesion with 'see-sawing' Doppler flow arising from the superficial temporal artery. RT Temp ART: labelling of the right temporal artery (the feeder vessel)

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Figure 3 The patient at 2 weeks after surgical ligation.

Spontaneous aneurysm of the superficial temporal artery

Wu Wei, George P Akkersdijk

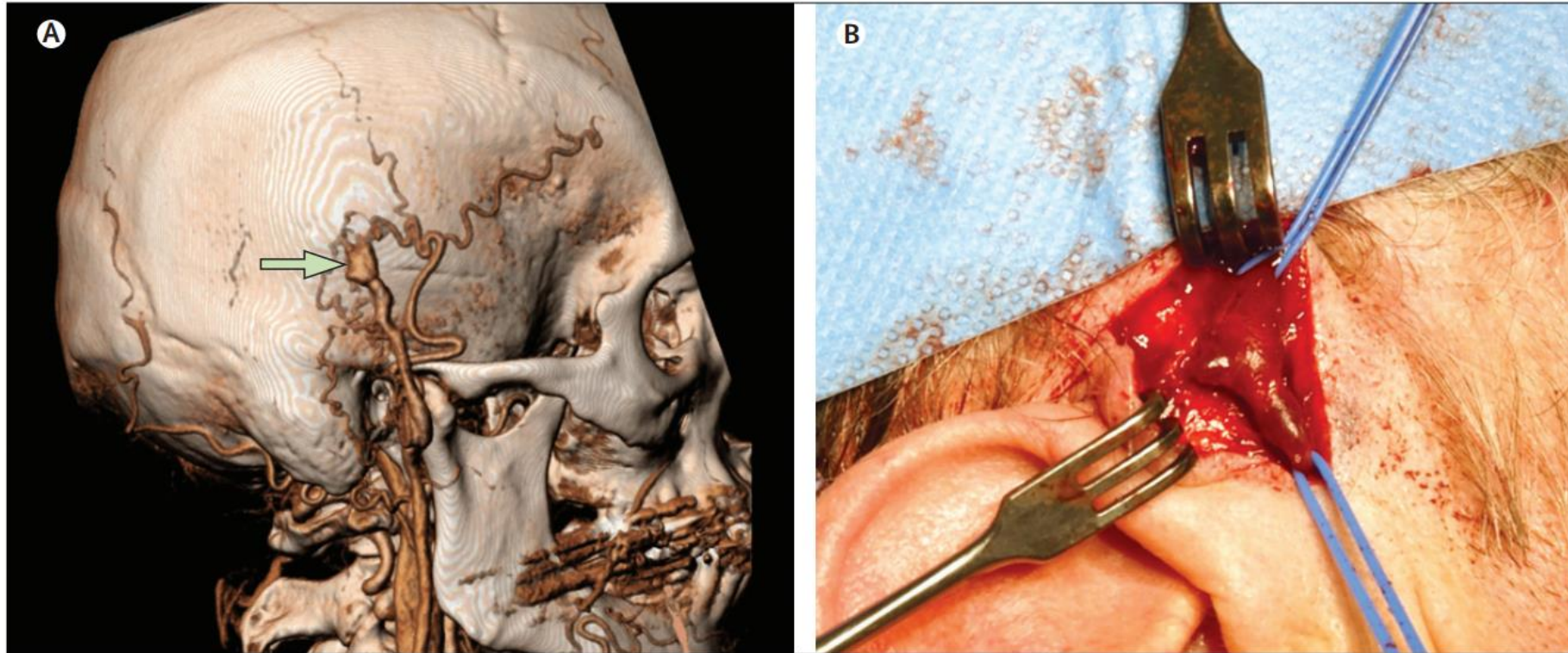


Figure: Superficial temporal artery aneurysm

(A) 3D reconstruction of CT angiography showing an aneurysm of the superficial temporal artery (arrow); and (B) photograph of surgical resection of the superficial temporal artery aneurysm.



Clinical Features

CASE REPORT

Superficial temporal artery pseudoaneurysm following facial trauma

James Johnston, Carl Mark Sullivan

The typical presentation of STA aneurysms is **a compressible pulsatile mass**

- Onset is approximately 2 to 6 weeks after head injury.
- Although some patients have had headache, pulsations, and ear discomfort, most have had no symptoms.

Less frequent :

- pain, visual disturbance, dizziness, hemorrhage, and neurologic defects.



Treatment

The treatment of a temporal artery aneurysm is often surgical.

- I. Resection of the aneurysmal sac with double ligation of the proximal and the distal ends
- II. The endovascular techniques : by ultrasound-guided direct injection of thrombin or embolization .

Any reported cases post blepharoplasty?



Case Report

Superficial Temporal Artery Pseudoaneurysm After Face Lift

Karen Lin, MD; Alan Matarasso, MD; David R. Edelstein, MD; Richard W. Swift, MD; and Yelizaveta Shnayder, MD

Dr. Lin and Dr. Shnayder are residents in the Department of Otolaryngology, New York University, New York, NY. Dr. Matarasso and Dr. Swift are board-certified plastic surgeons and practice in the Department of Plastic Surgery, Manhattan Eye, Ear, and Throat Hospital, New York, NY. Dr. Edelstein is Chairman of the Department of Otolaryngology–Head and Neck Surgery, Manhattan Eye, Ear, and Throat Hospital.

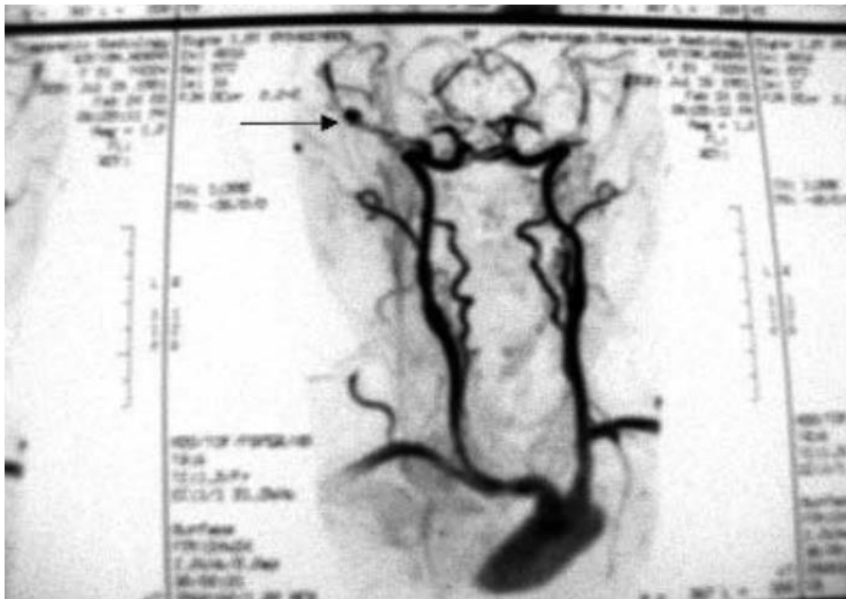


Figure 2. Selective external carotid artery angiogram showing the right superficial temporal artery pseudoaneurysm (arrow).



Figure 3. Intraoperative view of the pseudoaneurysm and its relationship to fascial planes.

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Thank You

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