INTERNATIONAL CONGRESS OF THE
EGYPTIAN
OPHTHALMOLOGICAL SOCIETY

In collaboration with:
MEACO
MIDDLE EAST AFRICA
COUNCIL OF OPHTHALMOLOGY

KASR ALAINY
CAIRO UNIVERSITY - FACULTY OF MEDICINE

Ocular masquerade in adults: Challenges in diagnosis and management

IHAB SAAD OTHMAN, MD, FRCS

PROFESSOR, CAIRO UNIVERSITY

CHAIRMAN, EYEWORLD HOSPITAL

VICE PRESIDENT, MEACO

TFOS AMBASSADOR

eye world

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In our Practice

- We encounter a myriad of unexplained signs in unusual situations
- Opaque ocular media pause a diagnostic dilemma
- **Think Ocular Tumors**

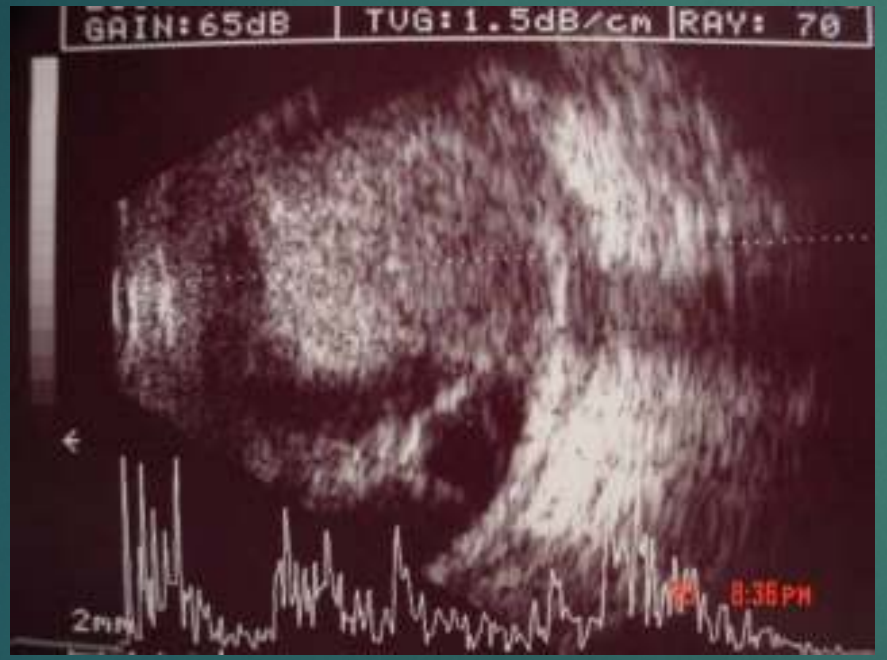
Case 1: 44 YOM

- Spontaneous hyphema OD

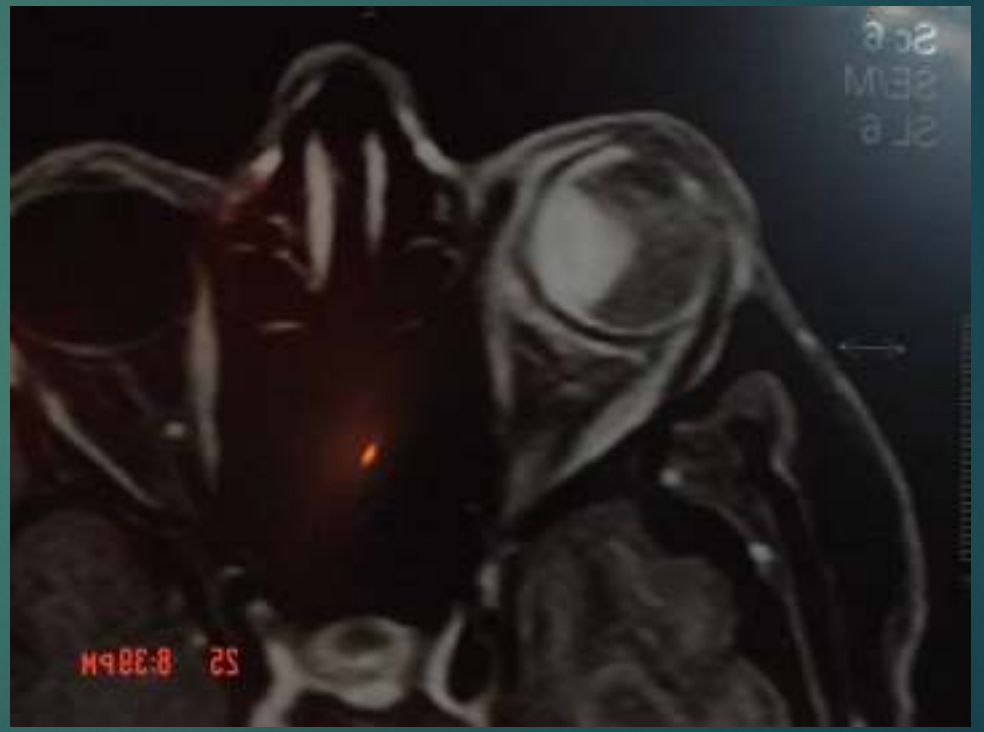
- VA: NLP

- History:
  - No bleeding tendency
  - No trauma
- Investigations:
  - Normal hematological profile

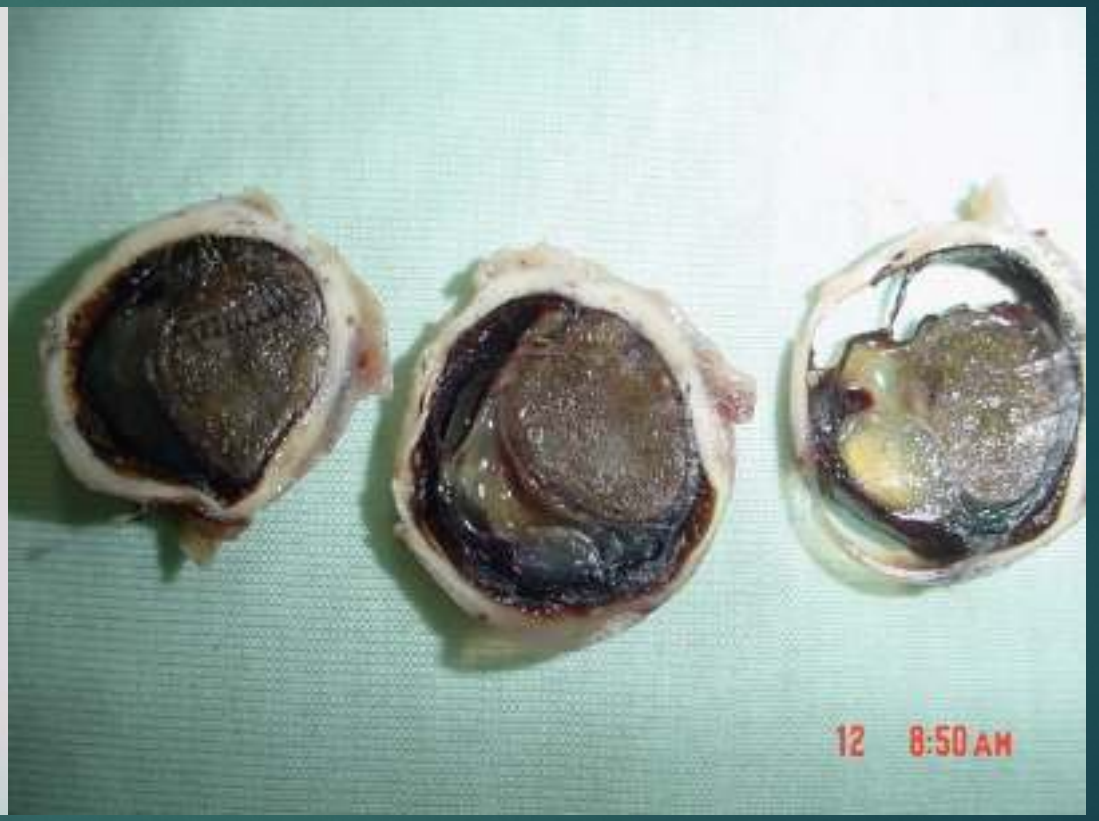
- US:



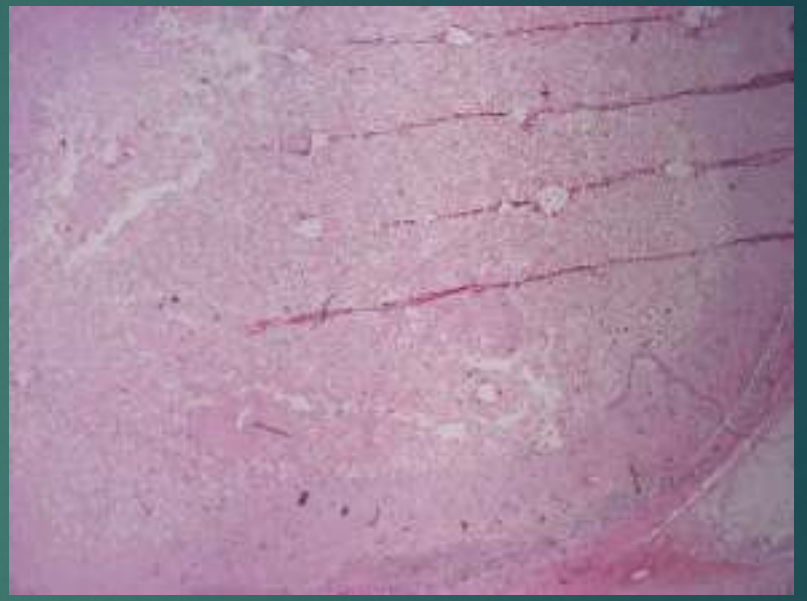
- MRI



Management



Management

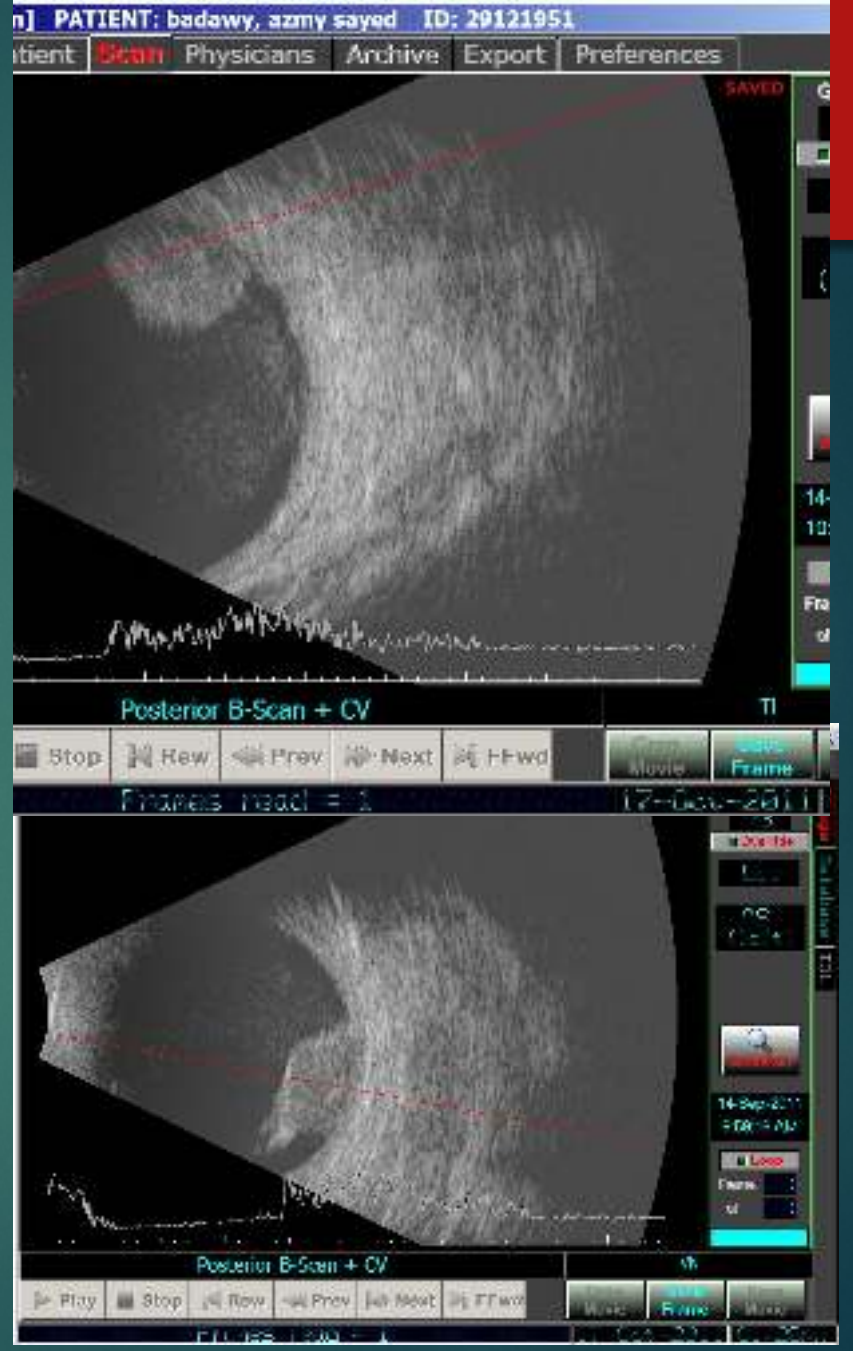


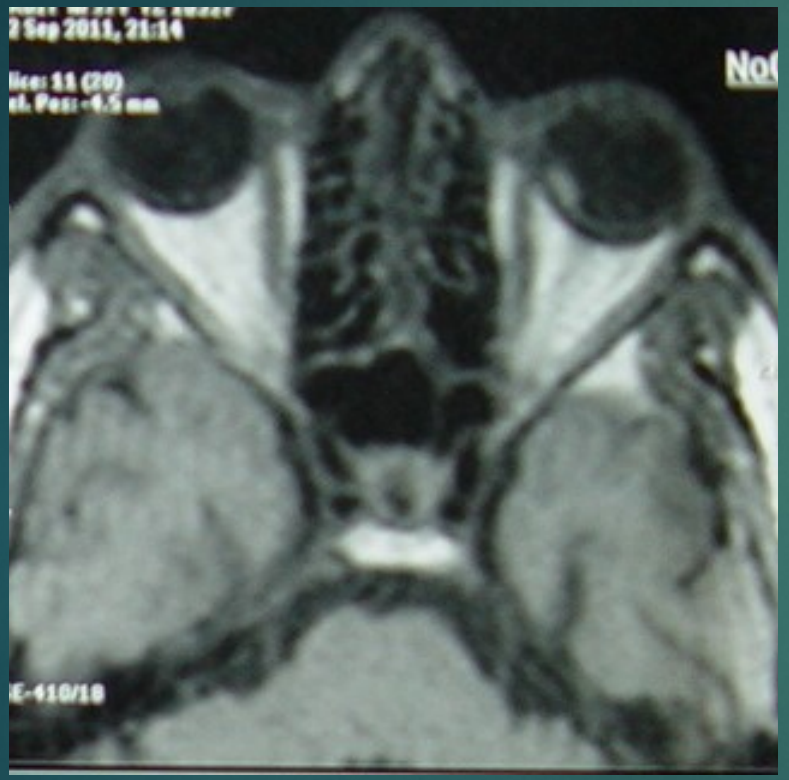
Hemorrhagic Lesions Simulating Melanoma

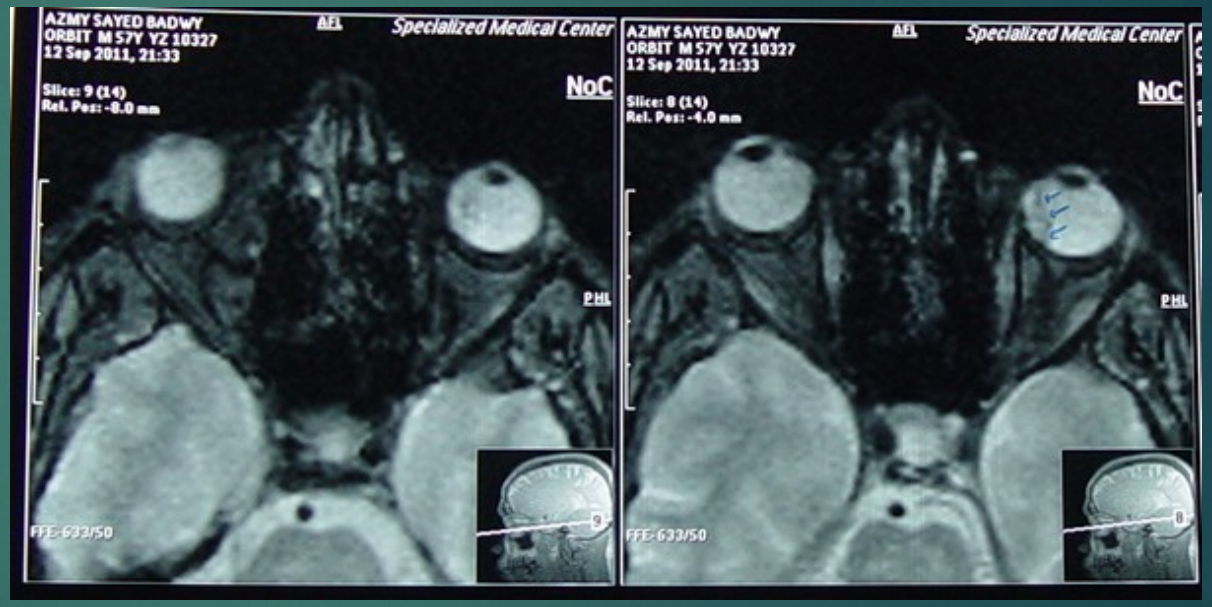
Case 2:

- 62 YOM
- POAG on Rx
- Rapid diminution VA OS x 2 weeks
  - HM /GP
- PMH:
  - DM/HT
  - IHD

- OD: WNL
- OS:
  - NS
  - IOP: WNL
  - Fundus: Vitreous hemorrhage



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ORBIT M 57Y YZ 10327
12 Sep 2011, 21:33
AFI
Specialized Medical Center
NoC
Slice: 9 (14)
Rel. Pos: -8.0 mm
P HL
FFE-633/50
AZMY SAYED BADWY
ORBIT M 57Y YZ 10327
12 Sep 2011, 21:33
AFI
Specialized Medical Center
NoC
Slice: 8 (14)
Rel. Pos: -4.0 mm
P HL
FFE-633/50

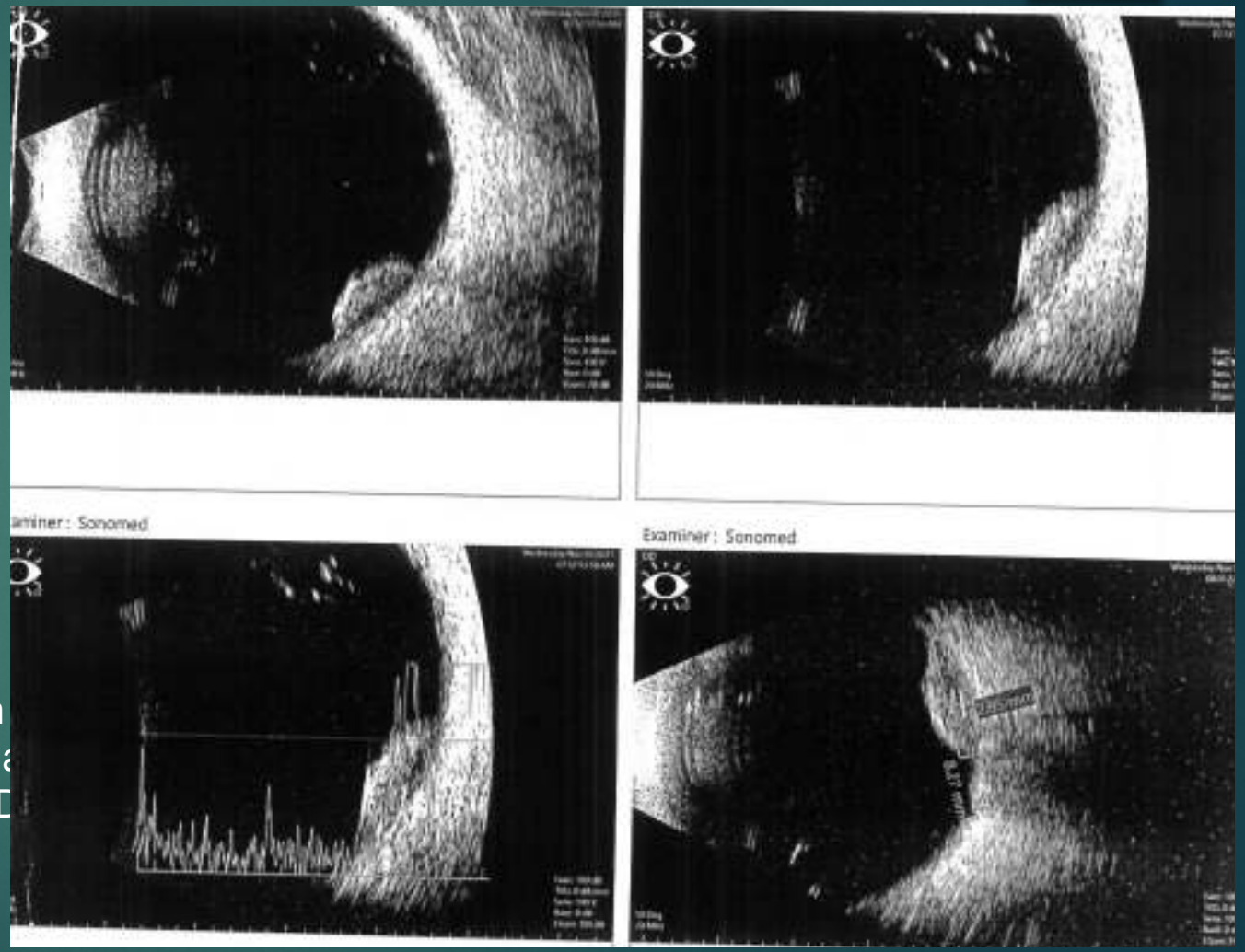
Suggested Management

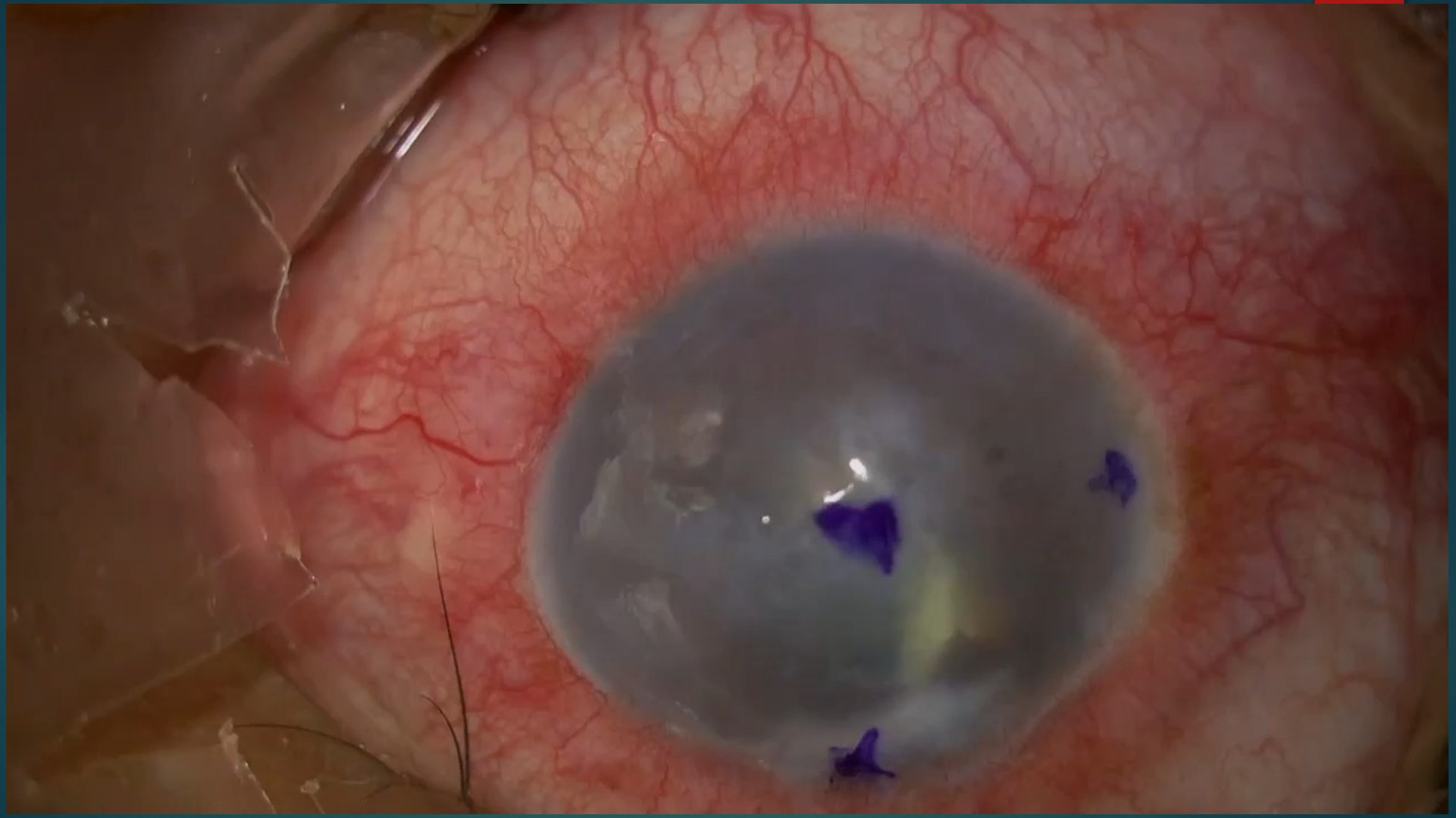
- Clues for the decision:
  - Blood thinners
  - Uncontrolled HT
  - US features

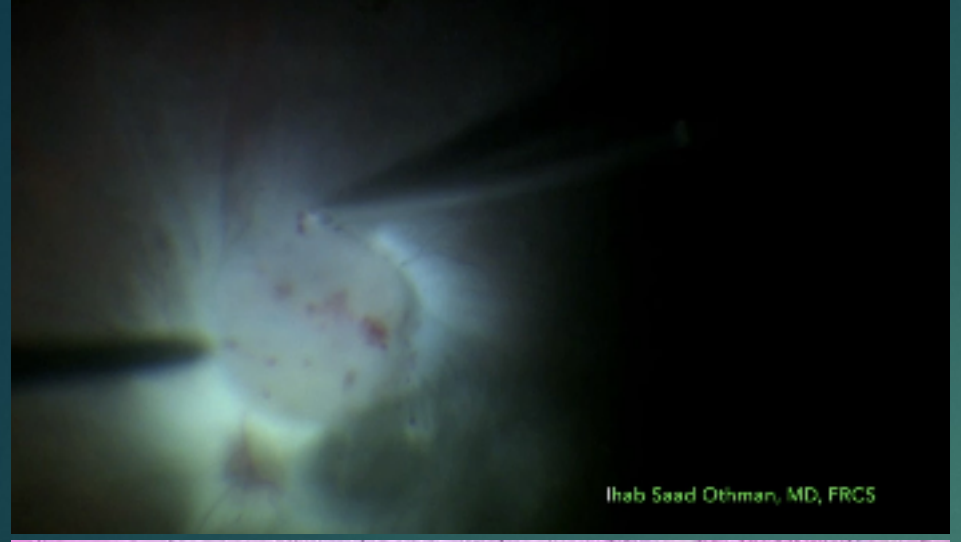
Old standing choroidal lesion in opaque media

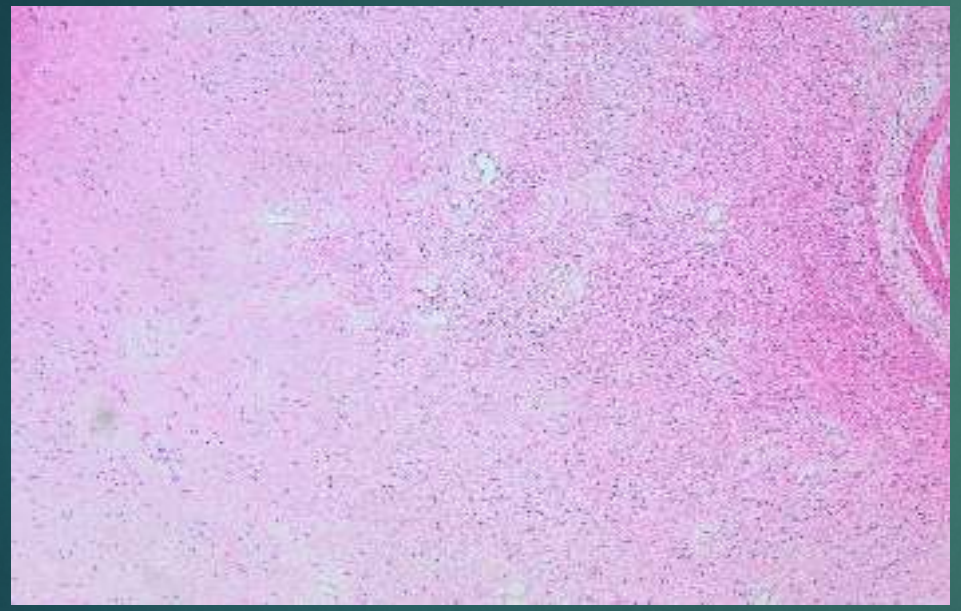
Case 3:

- 44 YOM
- OD: amblyopia
- Corneal opacity OD
- US:
  - Axial length +/- 24.5 mm
  - Pseudophakia
  - Elevated Mass temporal to ON involving the macular area with high initial reflectivity and internal irregula low to medium reflectivity with no RD
  - Size: 8.2 mm x 2.9 mm

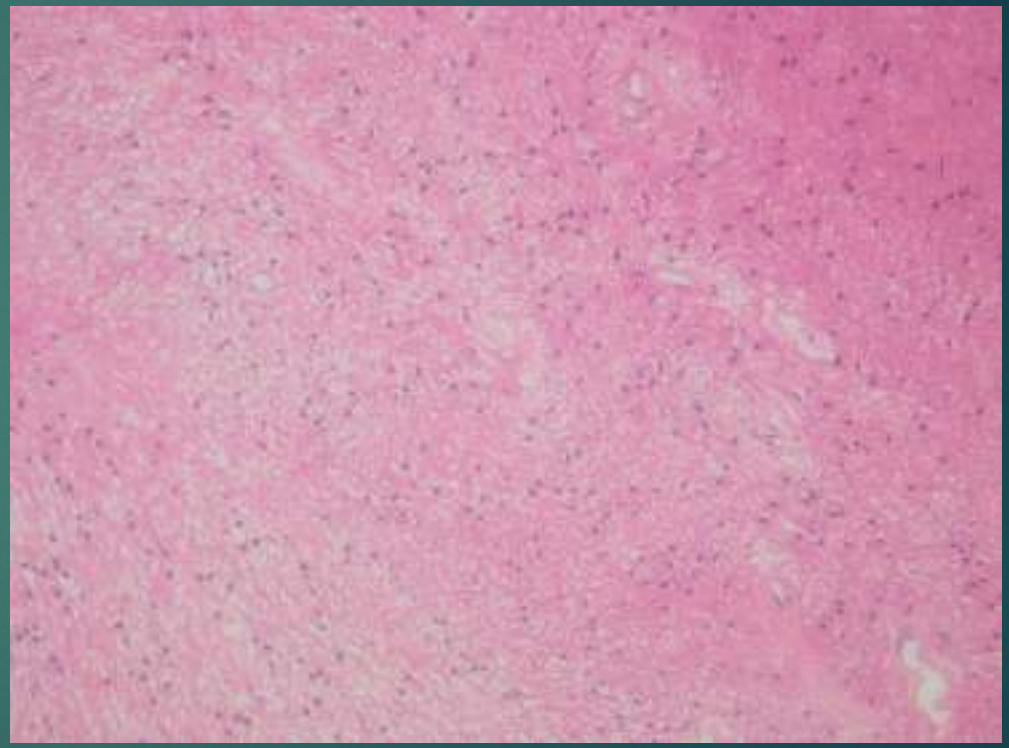




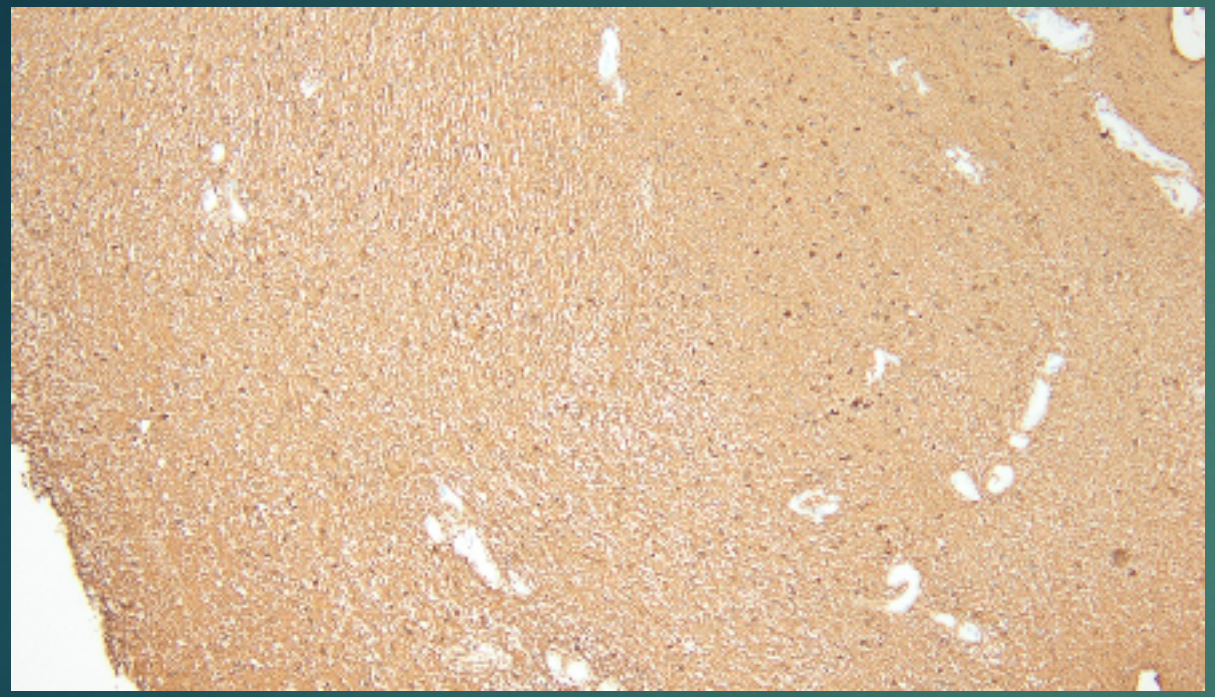




Hypocellular proliferating astrocytes, H&E, x20

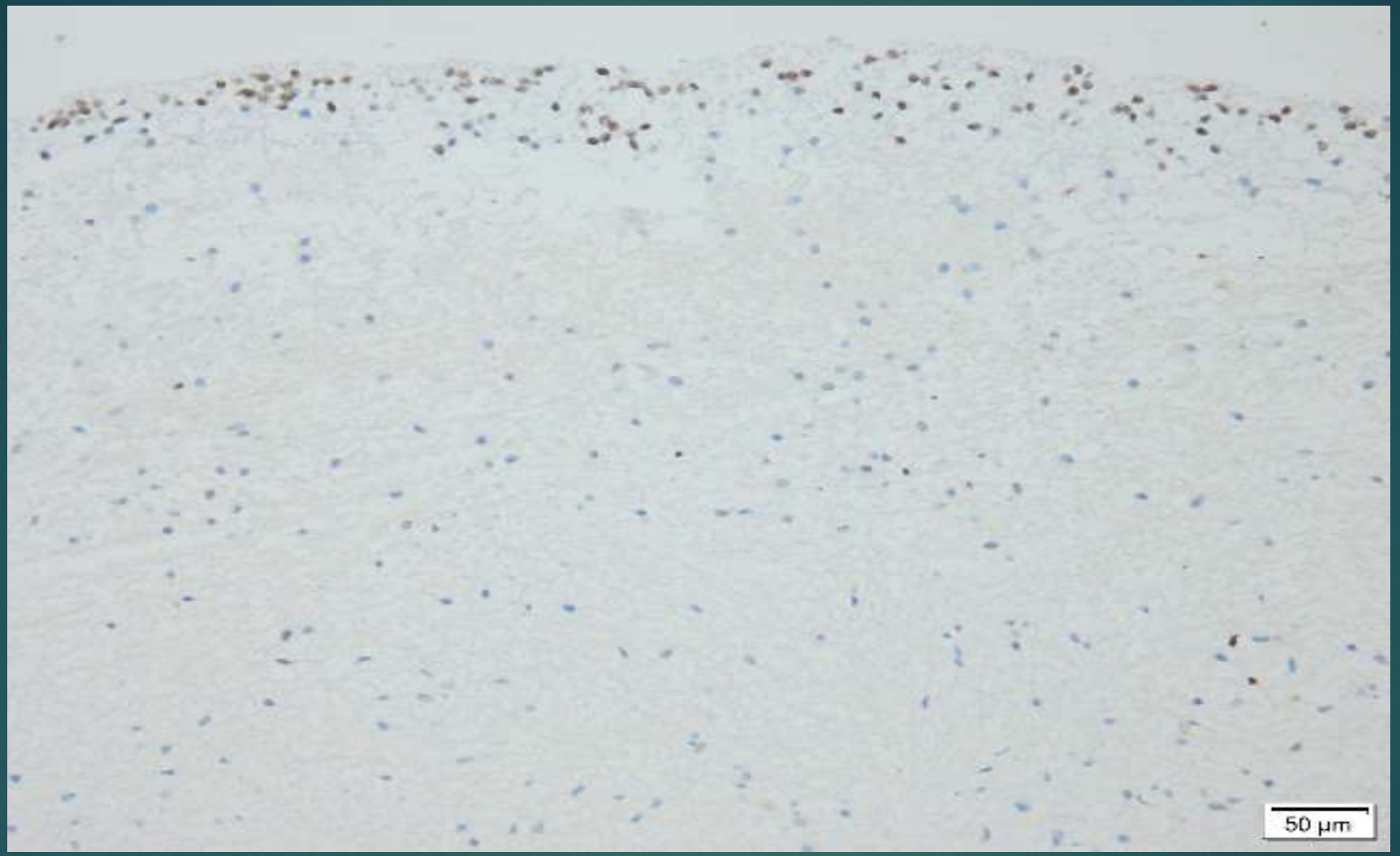


Tumor, H&E x40



GFAP, Immunohistochemistry x20

S100 , positive, Immunohistochemistry x40.



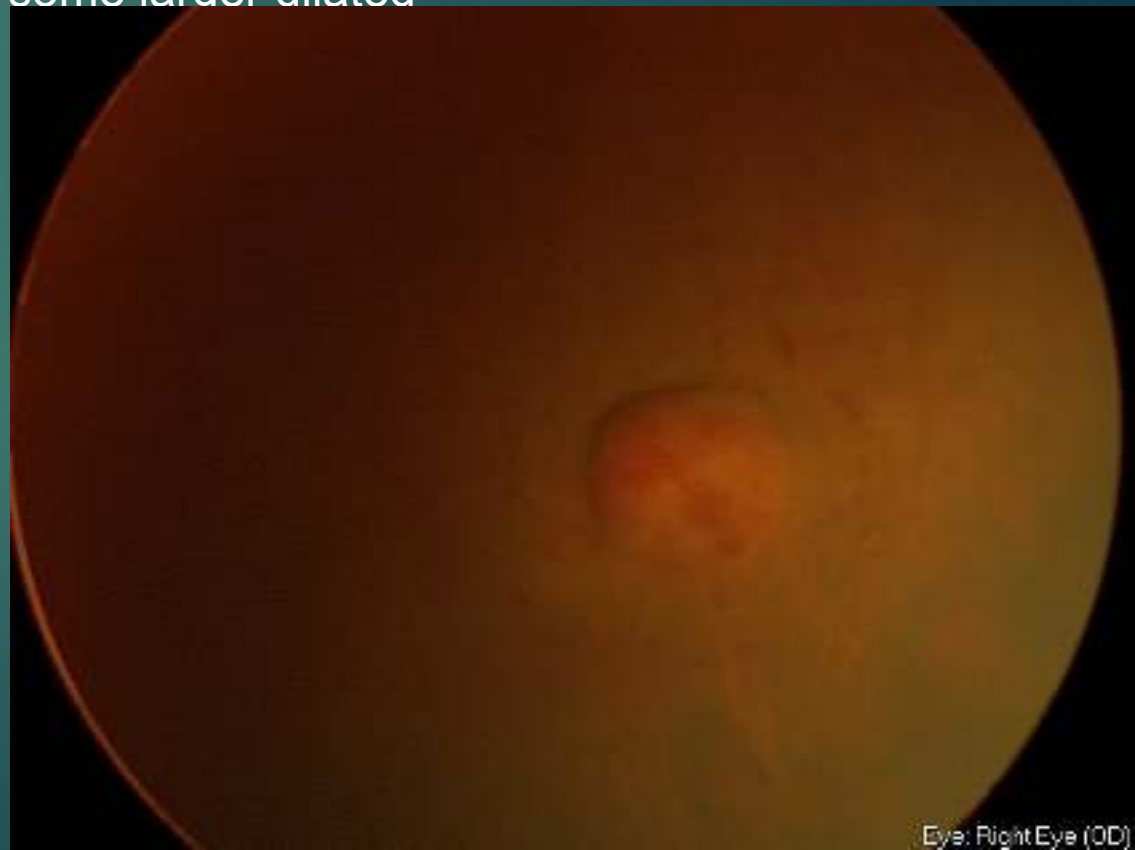
SOX10 showing negative tumor with positive retinal covering, Immunohistochemistry x40

Reactive retinal astrocytic tumor

Vasoproliferative tumor of the ocular fundus

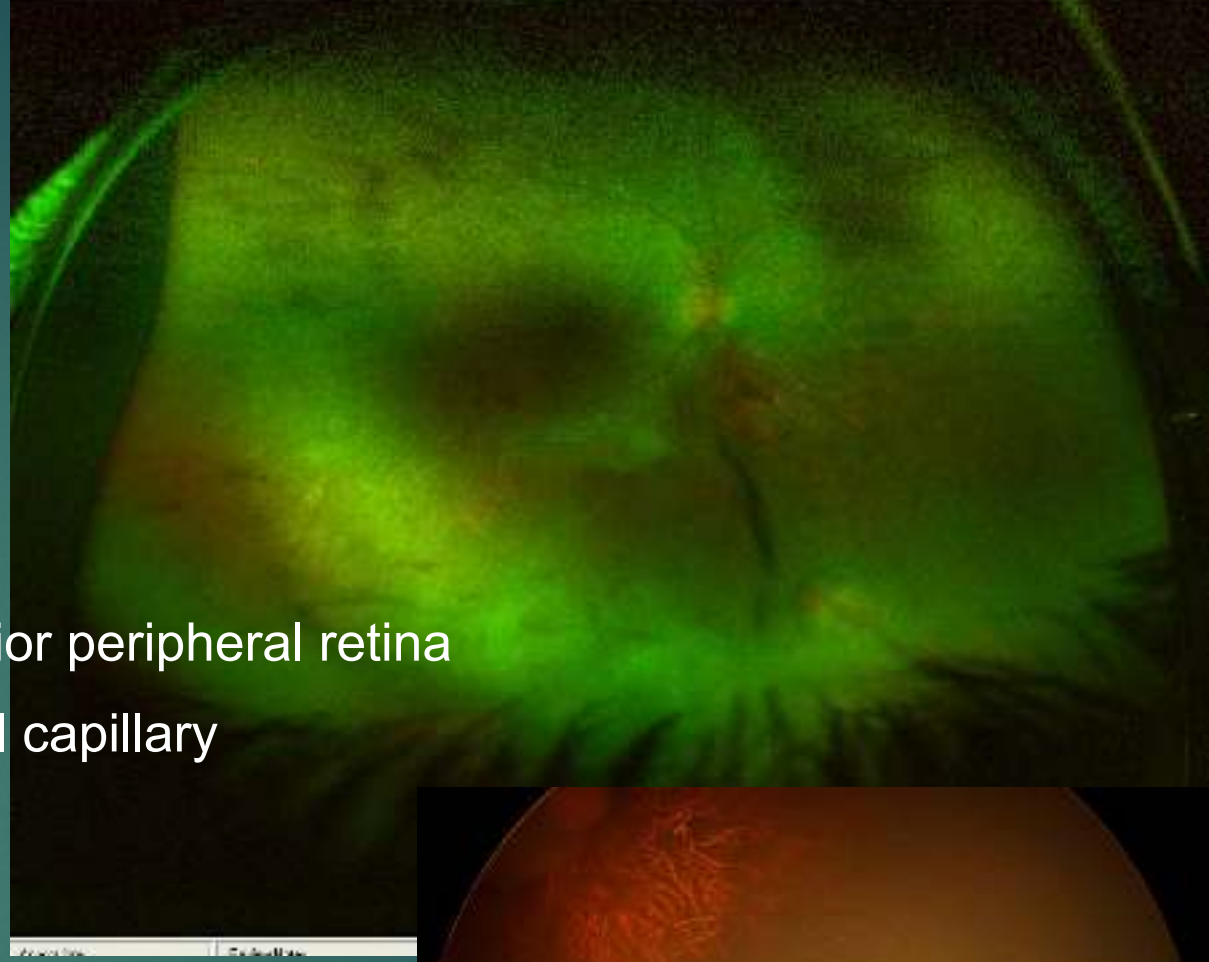
- Definition:
  - Elevated red-pink mass with no feeding artery and a draining vein
  - A mixture of glial cells and a network of fine capillaries with some larger dilated blood vessels

- Aetiology:
  - Primary: unilateral, solitary, IT (74%)
  - Secondary (26%):
    - Intermediate uveitis
    - Retinitis pigmentosa
    - Ocular toxocara
    - Coats' disease
    - Chronic retinal detachment
    - Ocular trauma
    - Inflammation

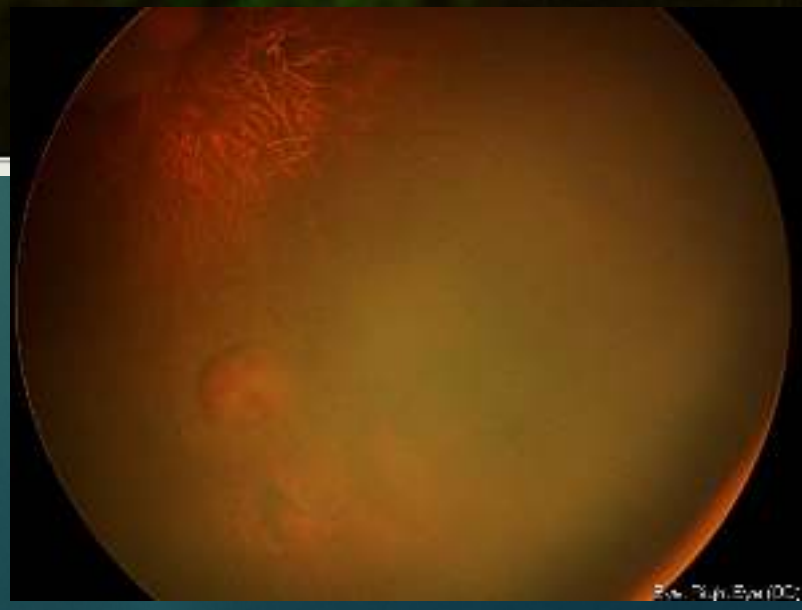


CP

- Third or fourth decade
- Both sexes are equally affected



- Globular yellowish-pink vascular mass in the inferior peripheral retina
- Lacking the feeder vessels typically seen in retinal capillary hemangioma
- Sub-retinal exudation (80%)



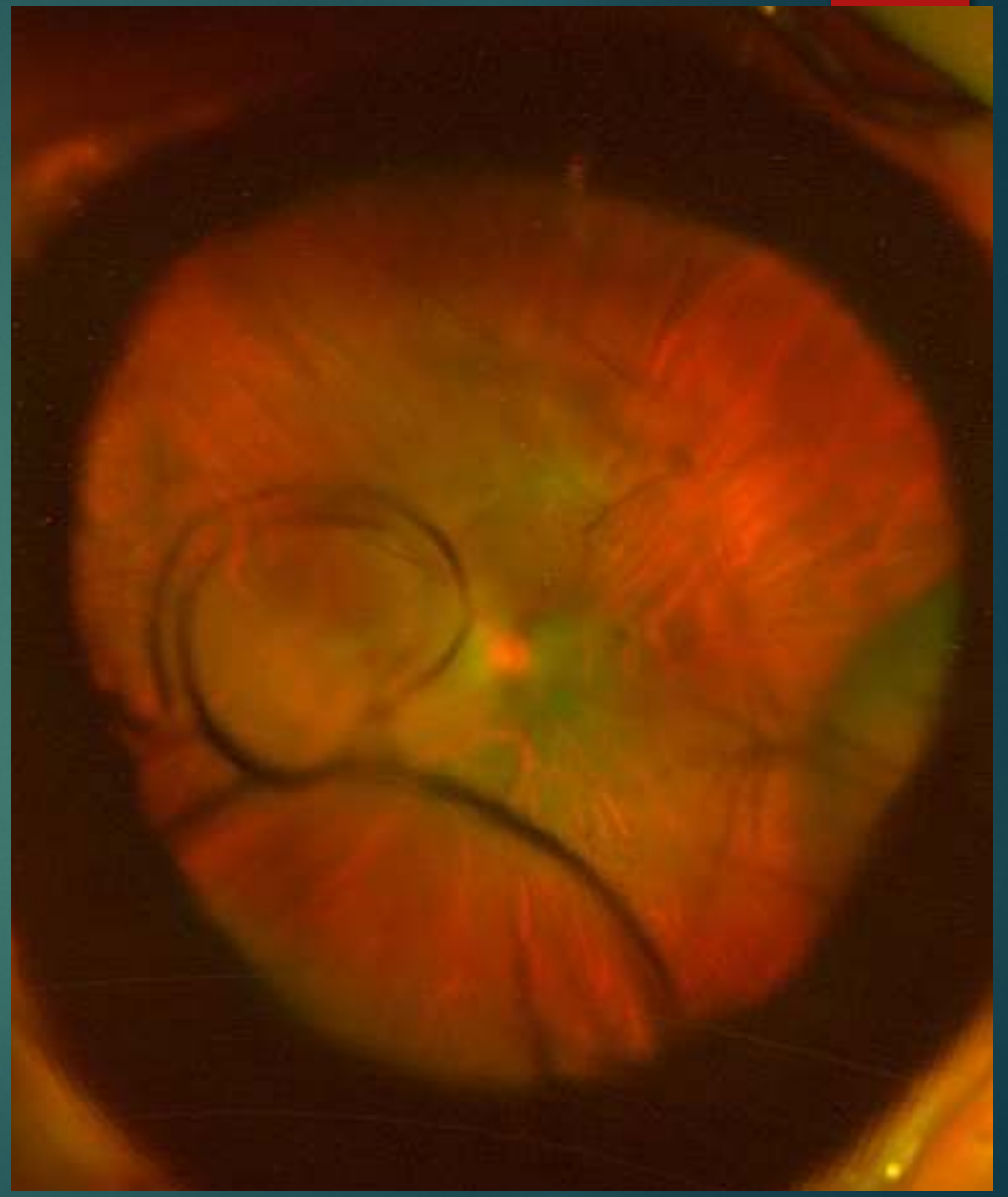
- Macular fibrosis and edema may lead to visual loss.

Peripheral Subretinal mass:
Is it truly a choroidal lesion ??

Case 4

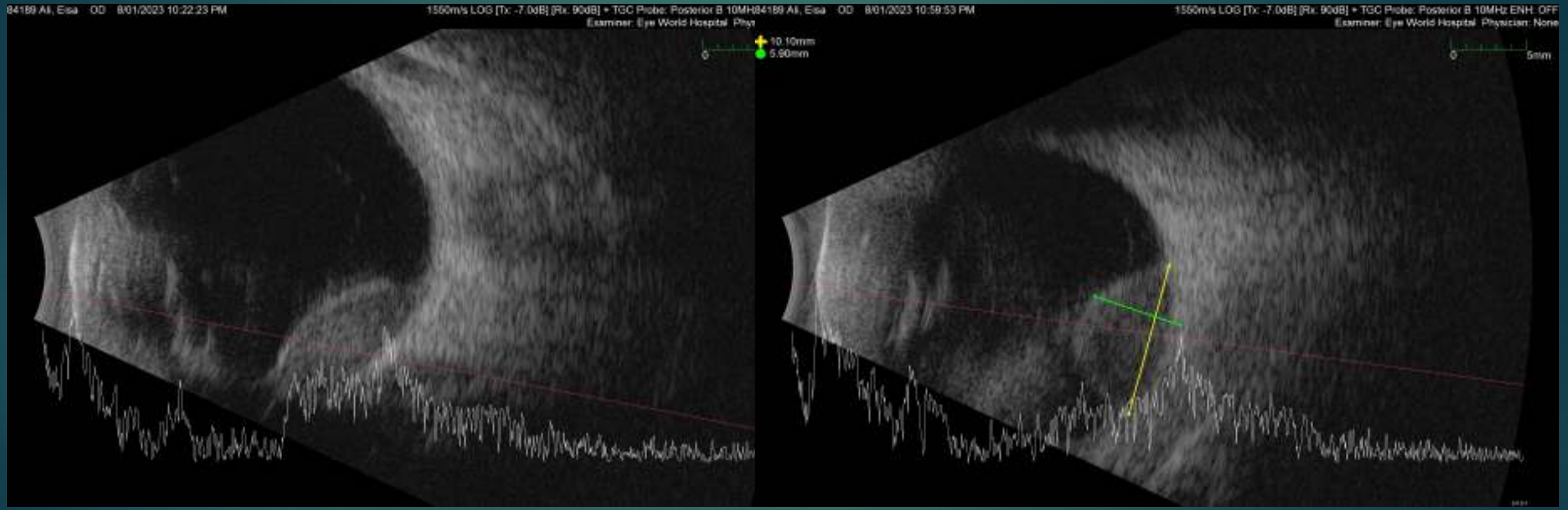
- 43 YOM
- Complicated cataract surgery
- Intraocular mass OD x 3 years

- VA: 6/60 (+14 D)

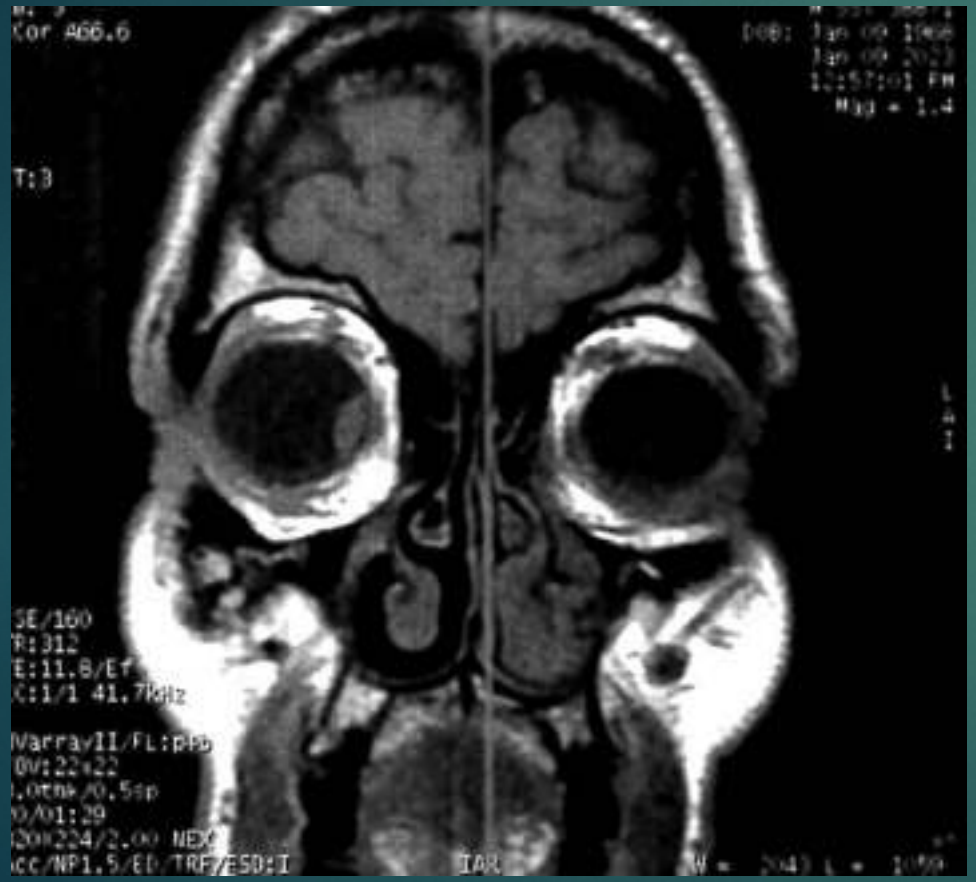



Cuneate Montage Findings Clinically

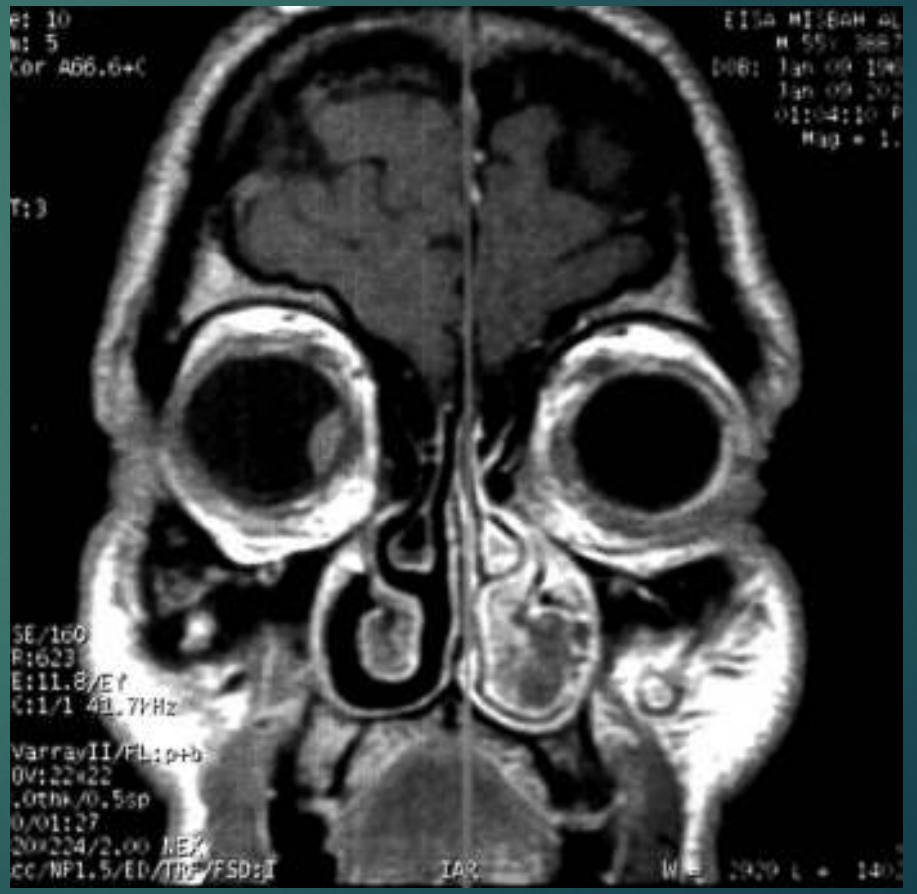
10 x 6 mm


84189 Ali, Esa OD 8/01/2023 10:22:23 PM
1560m/s LOG [Tx: -7.0dB] [Rx: 90dB] + TGC Probe: Posterior B 10MH
Examiner: Eye World Hospital Phys
10.10mm
5.90mm
84189 Ali, Esa OD 8/01/2023 10:59:53 PM
1560m/s LOG [Tx: -7.0dB] [Rx: 90dB] + TGC Probe: Posterior B 10MHz ENH: OFF
Examiner: Eye World Hospital Physician: None
5mm

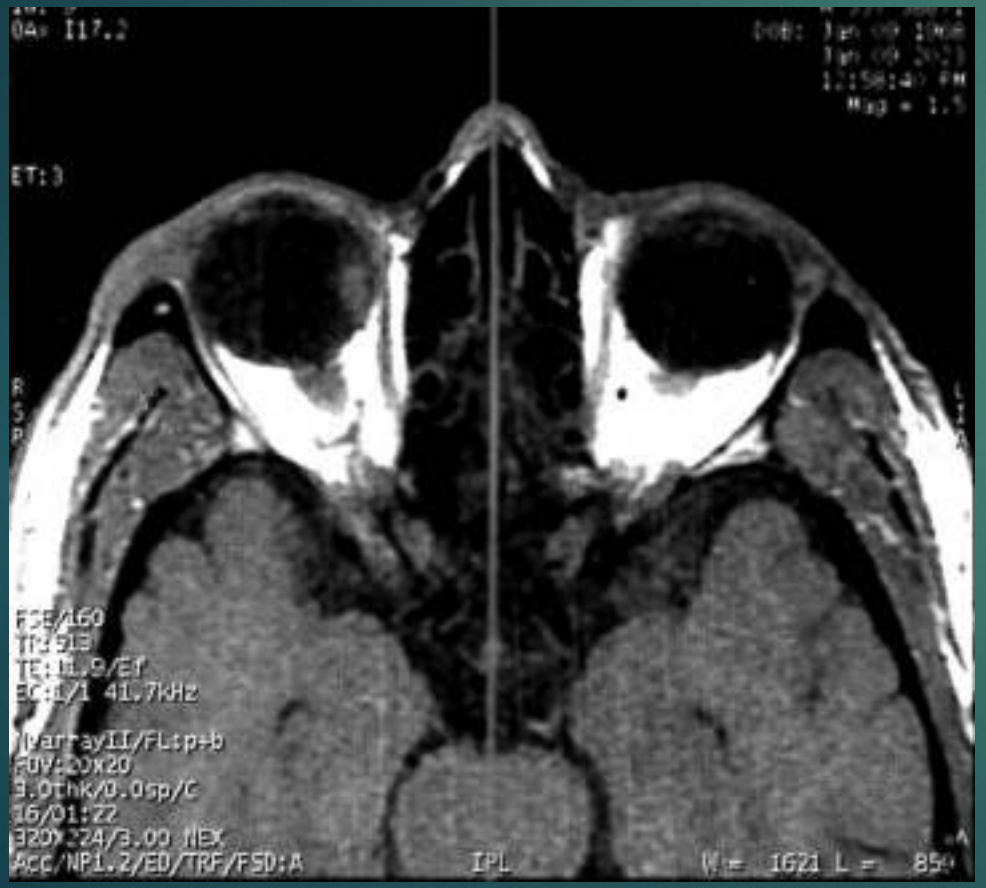
MRI coronal:
T1W: mildly hyperintense dome shaped nasal intraocular lesion



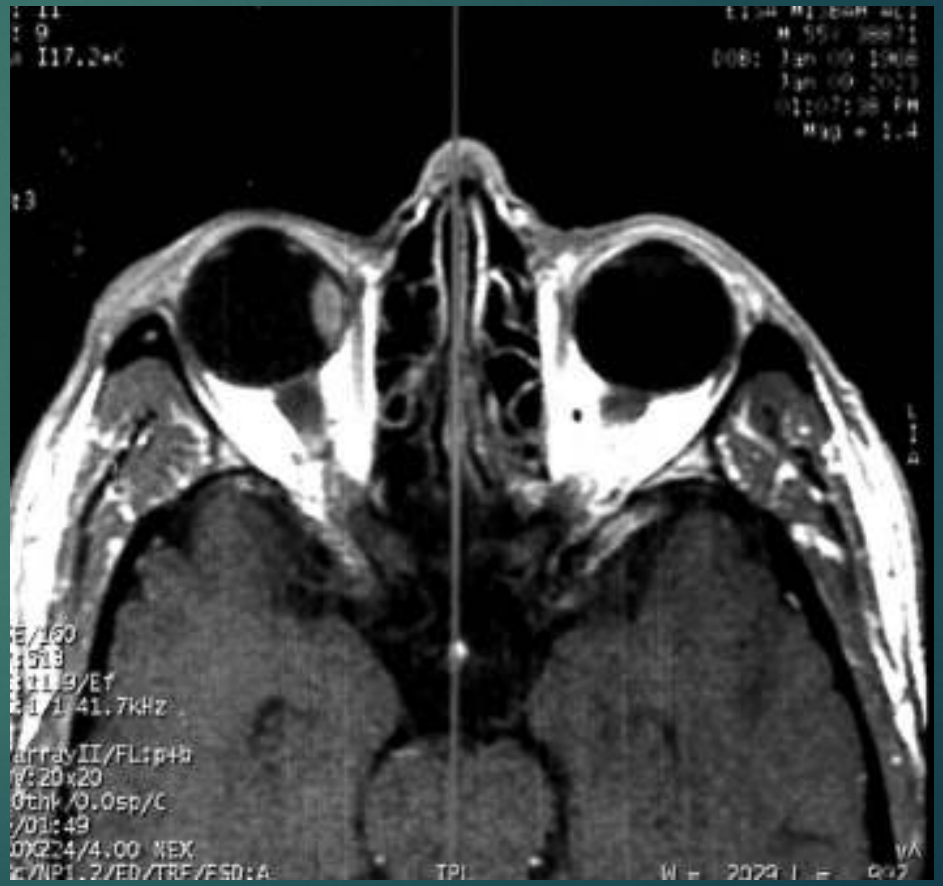
MRI:
T1W with contrast: Enhancement



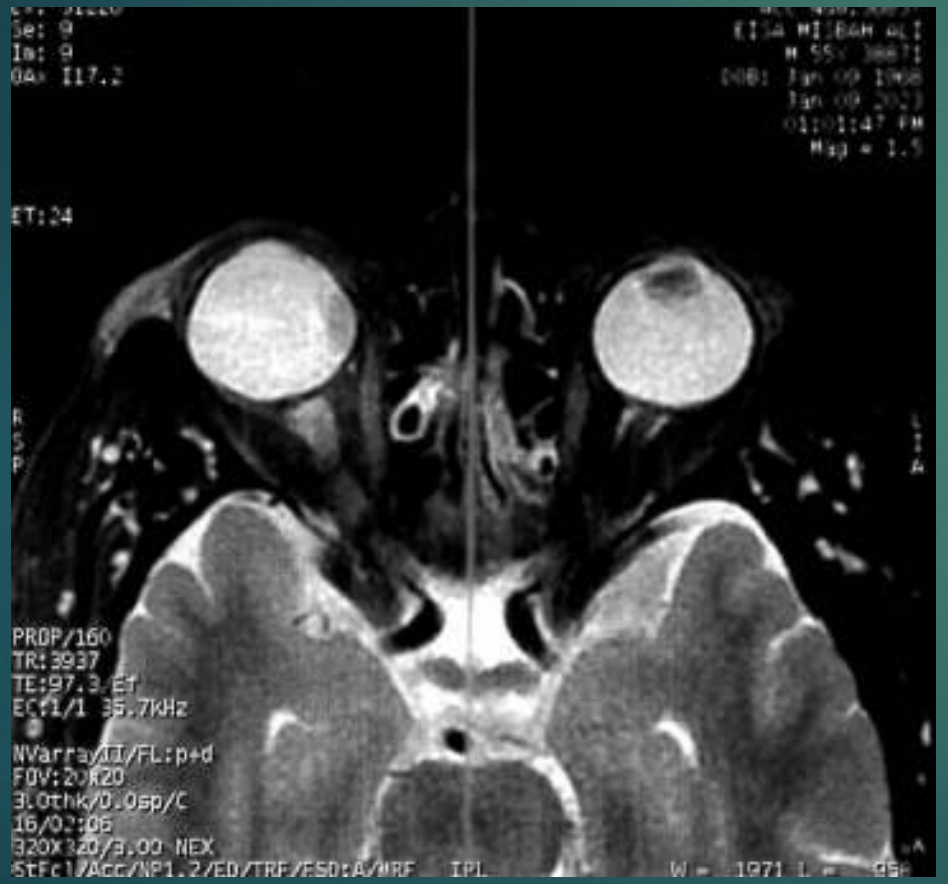
MRI axial:
T1W: mildly hyperintense dome shaped nasal intraocular lesion

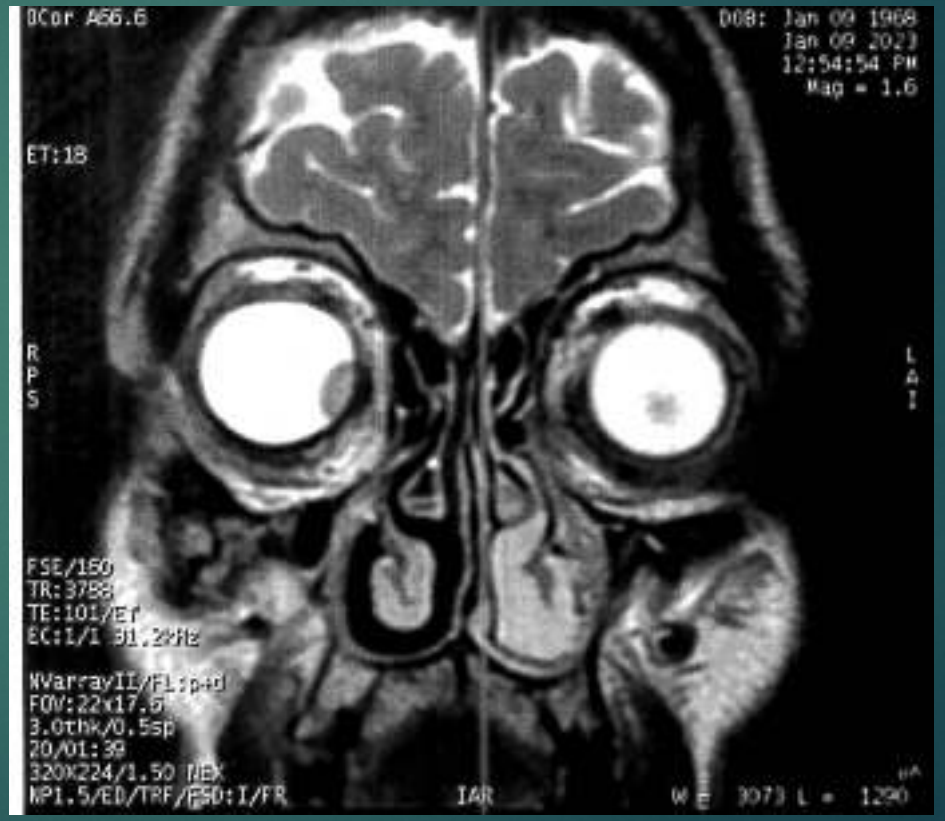


MRI:
T1W with contrast: Enhancement



MRI:
T2W: Hypointense lesion





Systemic workup

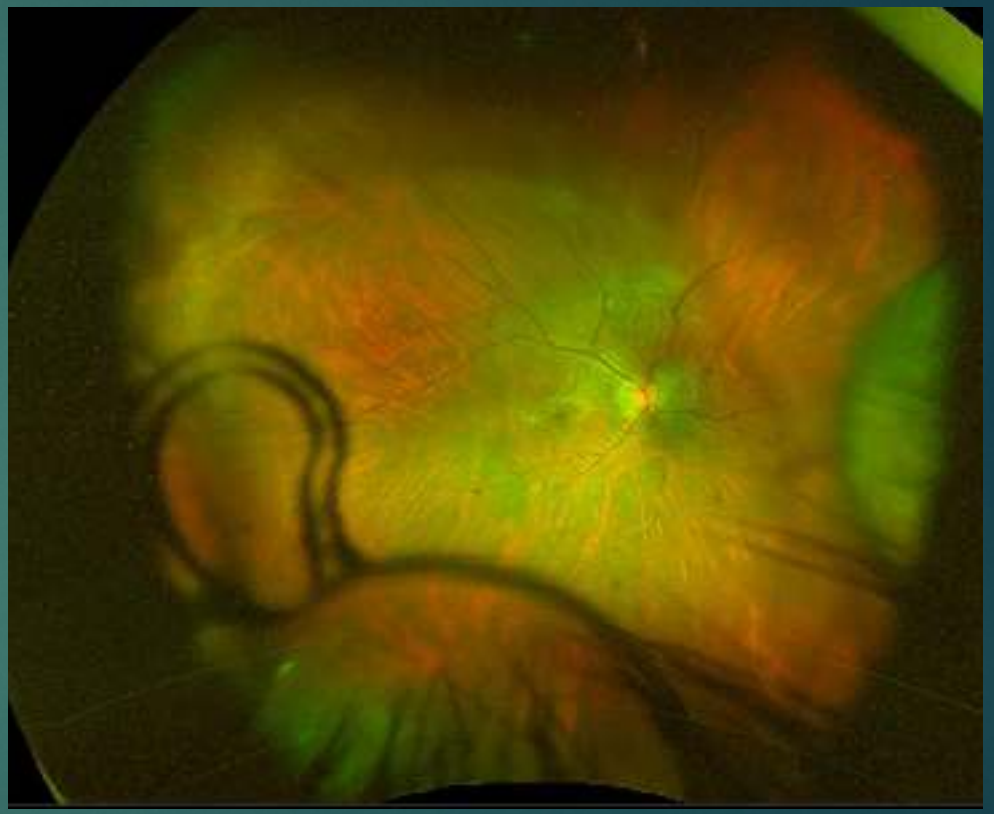
- CT chest: Normal
- Abdominal US: Normal

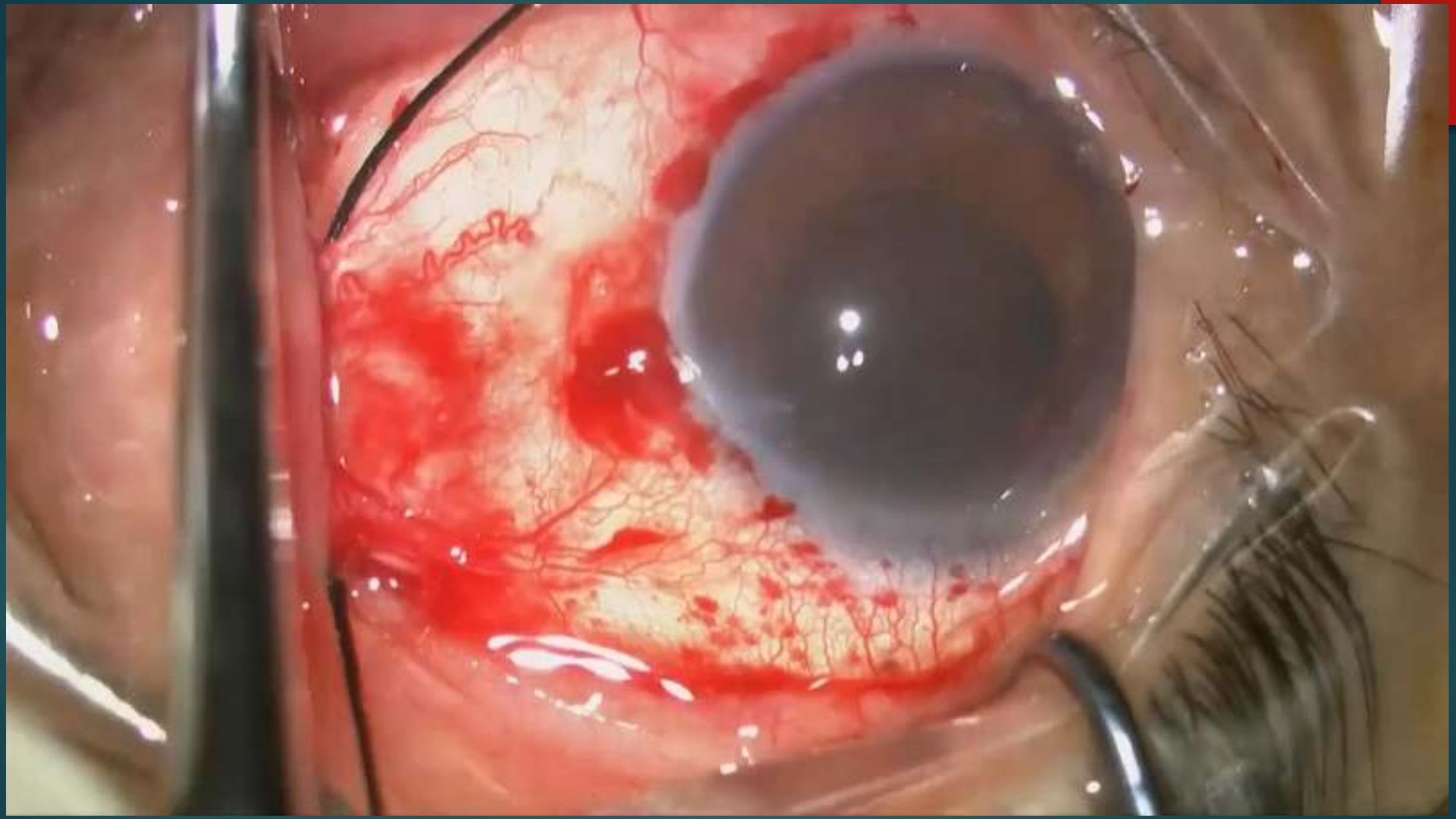
DD: Atypical choroidal lesion

- **Metastatic ?**
- **Hemangioma ?**
- **Amelanotic Melanoma ?**
- **Other rare entities:**
  - **Hemangiopericytoma**
  - **Schwannoma**
  - **Neurofibroma**

Therapeutic options

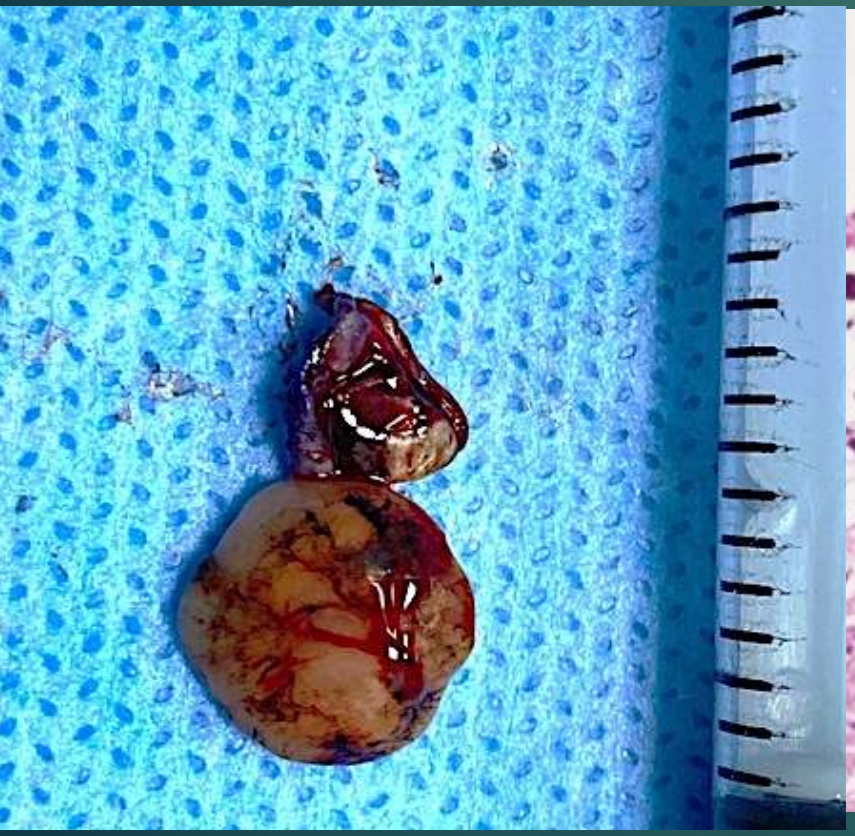
- **Tumor thickness < 6mm:**
  - **? Brachytherapy:**
    - Possible non-regression specially if benign
    - If non-regression → enucleation
  - **Enucleation:** ?? Why
  - **Surgical excision**:
    - Nasal mass
    - Peripheral
    - Accessible
    - Young healthy individual (hypotensive anesthesia)
    - Adjust/replapce the IOL
    - No need for FNAB (20% error)

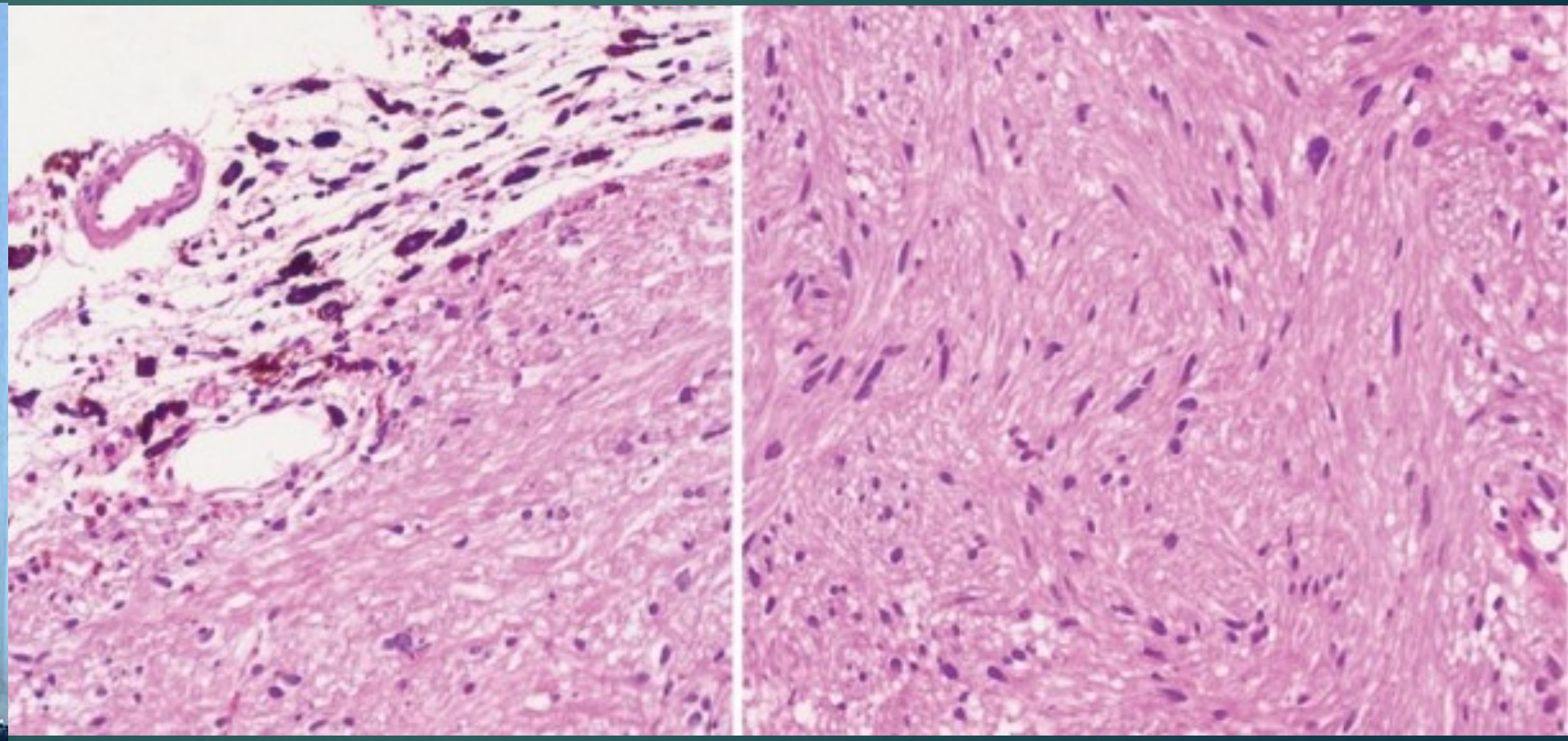




A well circumscribed mass hypercellular area shows bland spindle cells with whorling patterns. Antoni A (×200).

Schwannoma.

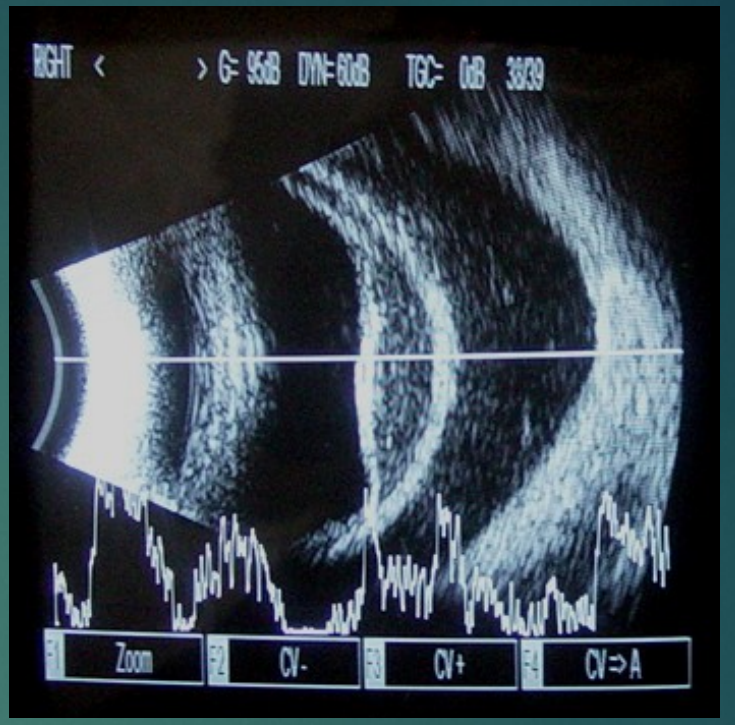


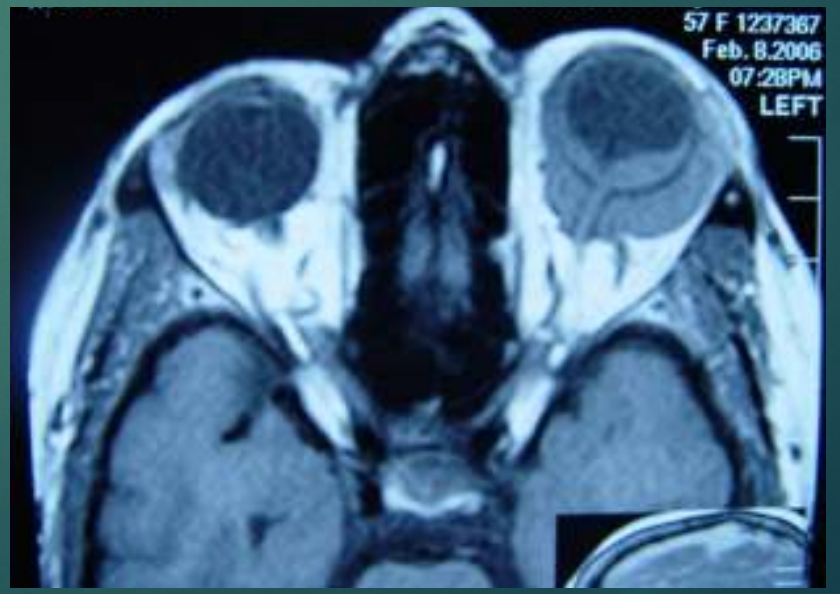


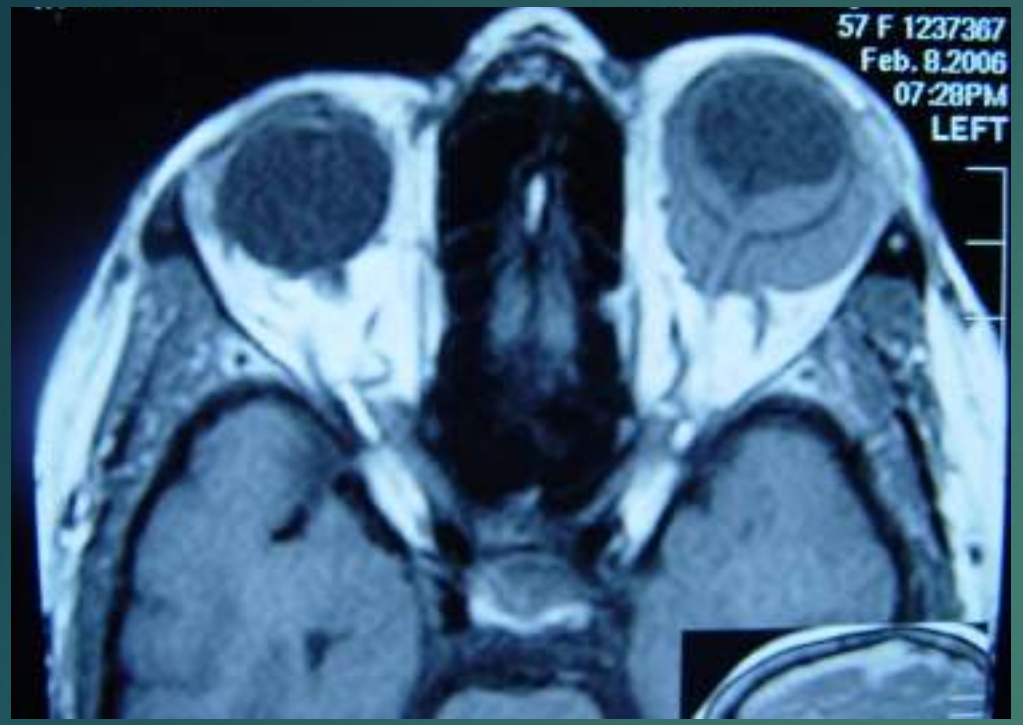
Postoperative: 1 year
VA: 1.0

Unilateral Intraocular and Extraocular Lesions: Limit your DD

- 57 YOF
- DVA OS for 3 months
-



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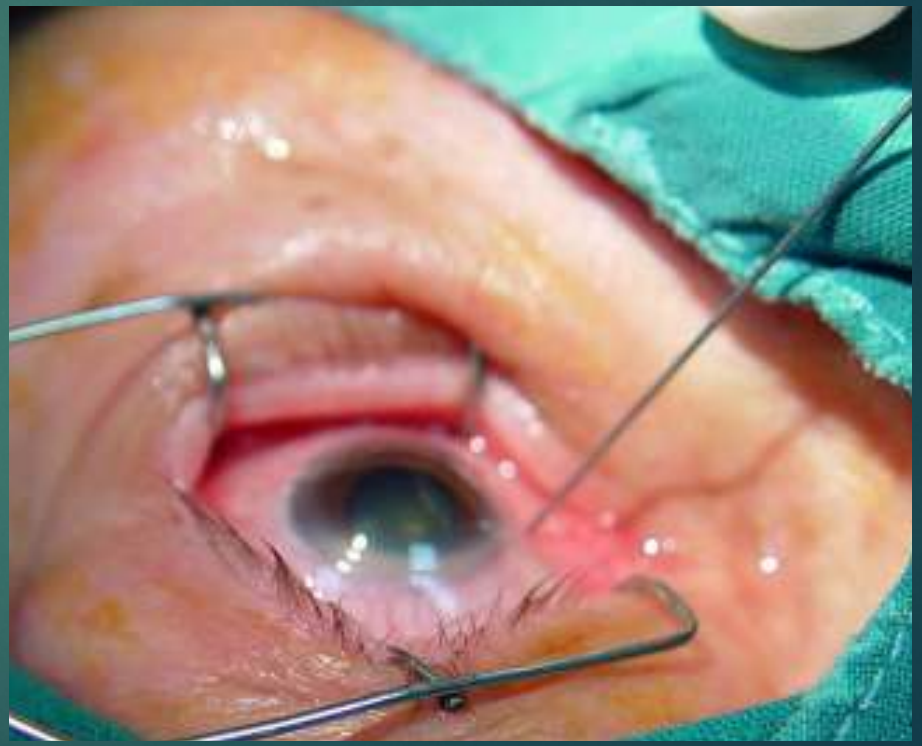
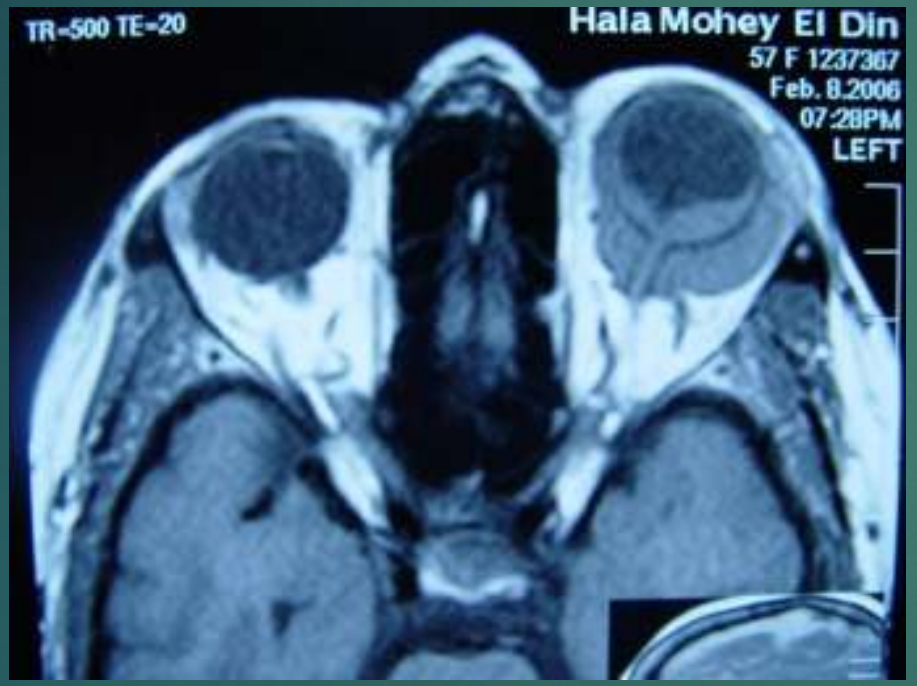
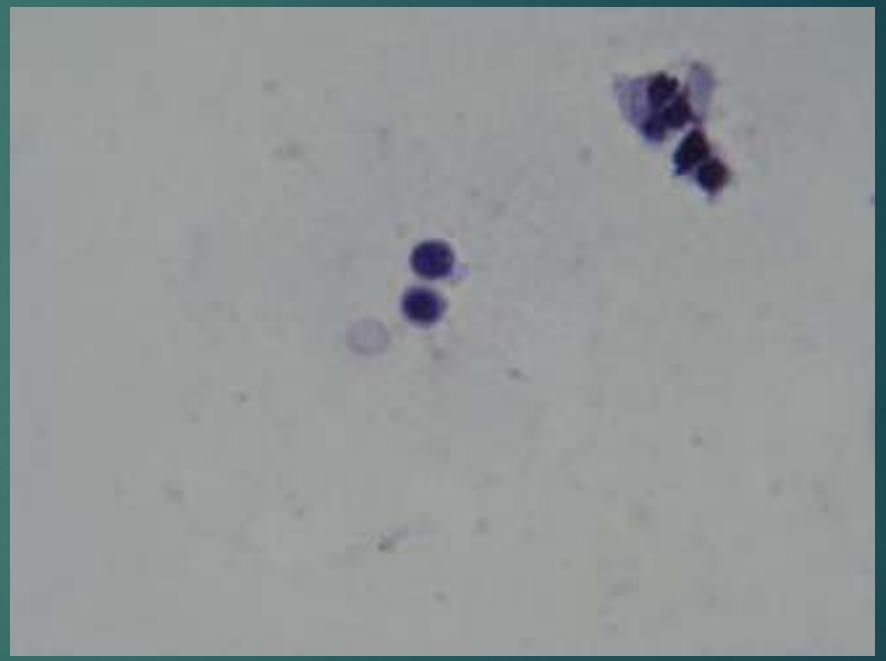


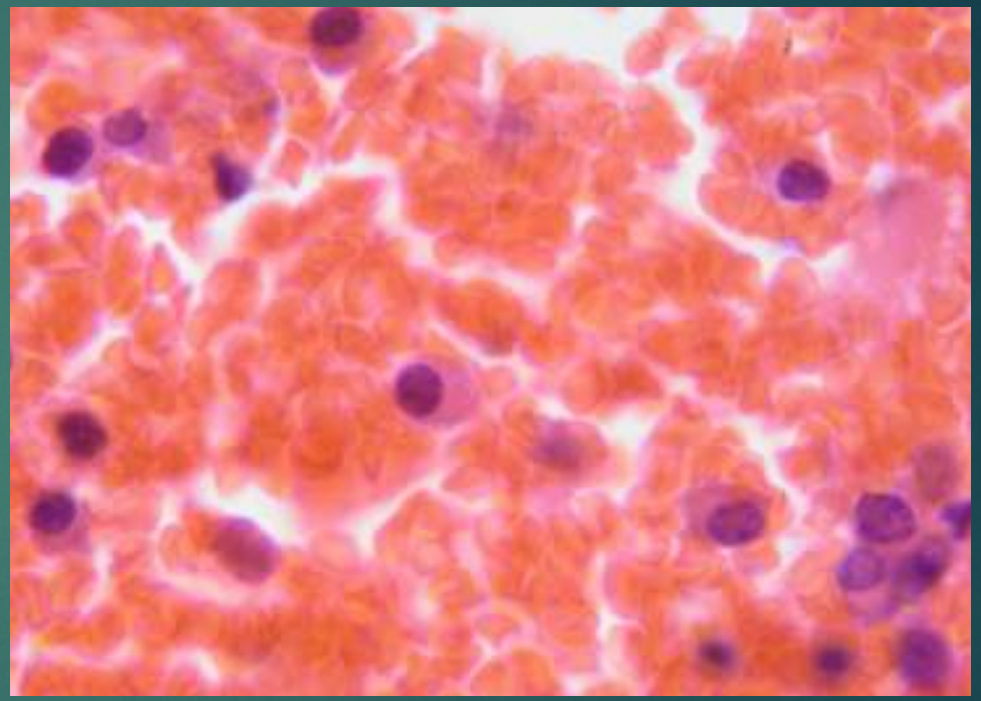
Lymphoma: 60 YOF





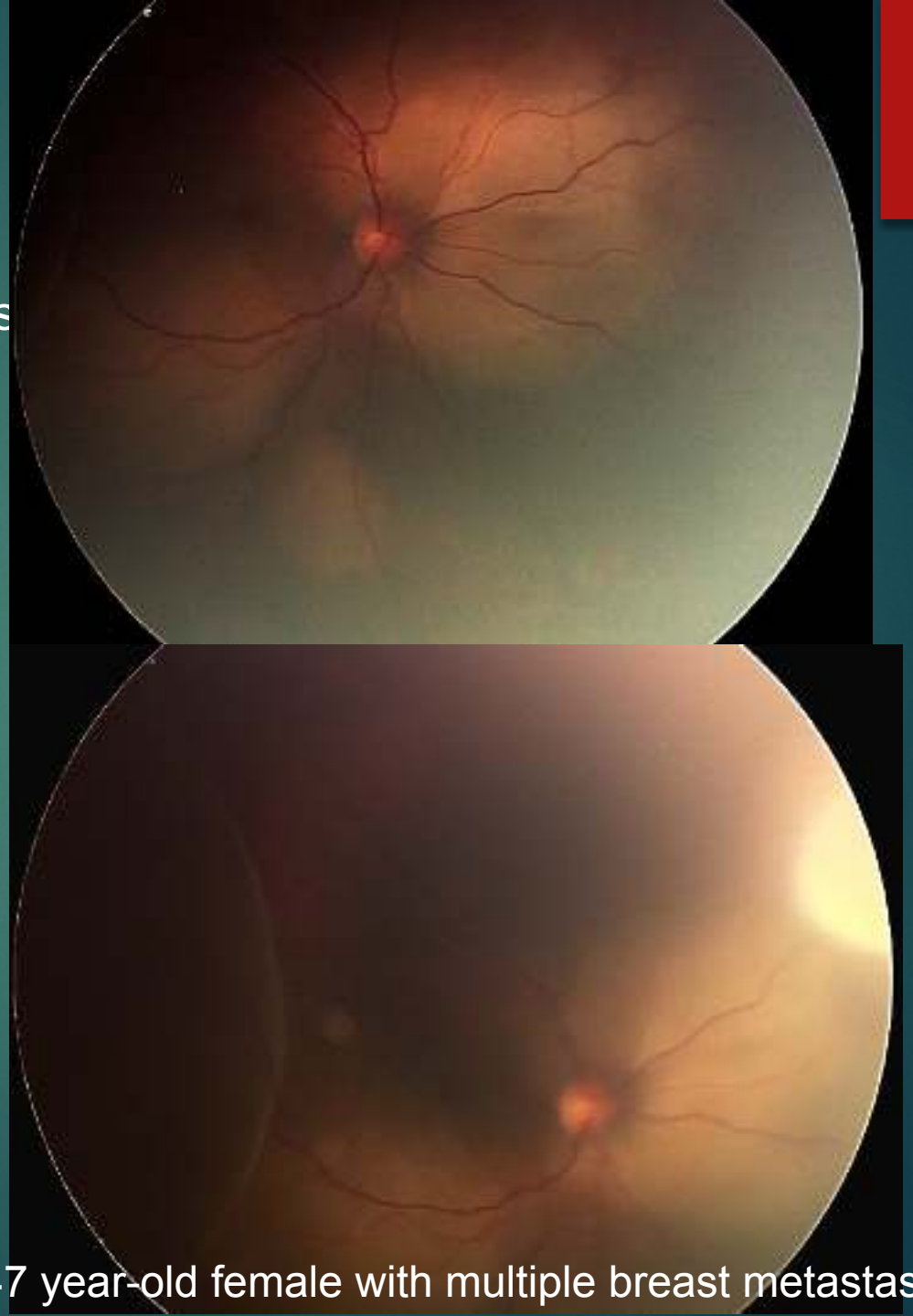
FNAB

- Plasmacytoma in a 65 YOF



Choroidal Metastases

- Commonest uveal malignancy (8-10% of pts with metastatic disease)
- Uveal sites:
  - Choroid: 88%
  - Iris: 9%
  - CB: 2%
- Primary site:
  - Breast 47%
  - Lung 21%
  - GI: 14%
- Unknown primary: 34%



47 year-old female with multiple breast metastases

Guidelines of FNAB

- Rarely indicated for diagnosis
- Effective when indicated and properly managed
- Indications:
  - Confirm uveal metastasis
  - Resolve uveal melanoma vs metastasis
  - Confirm uveal lymphoma
  - Confirm uveal granuloma
  - Confirm vitreoretinal lymphoma
- Limitations
- Uveal melanoma prognostication

Ihab Saad Othman, MD, FRCS
Ophthalmic Oncologist and VR Surgeon

Conclusion:

- Obscure Intraocular masses in adults pause a diagnostic dilemma
- Diagnsotic tools include US, MRI, PET CT when indicated
- Different approaches for diangosis and management
- Well equipped ophthalmic oncology centers
- Cooperation between ophthalmic oncologist, pathologist and general oncologist


THANK YOU