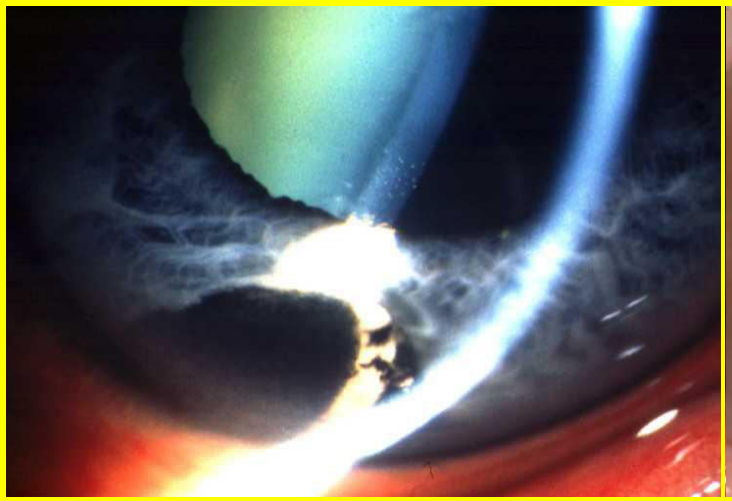
UVEAL TUMOURS

1. Iris melanoma
2. Iris naevus
3. Ciliary boy melanoma
4. Choroidal melanoma
5. Choroidal naevus
6. Choroidal haemangioma
   - Circumscribed
   - Diffuse
7. Choroidal metastatic carcinoma
8. Choroidal osseous choristoma
9. Melanocytoma

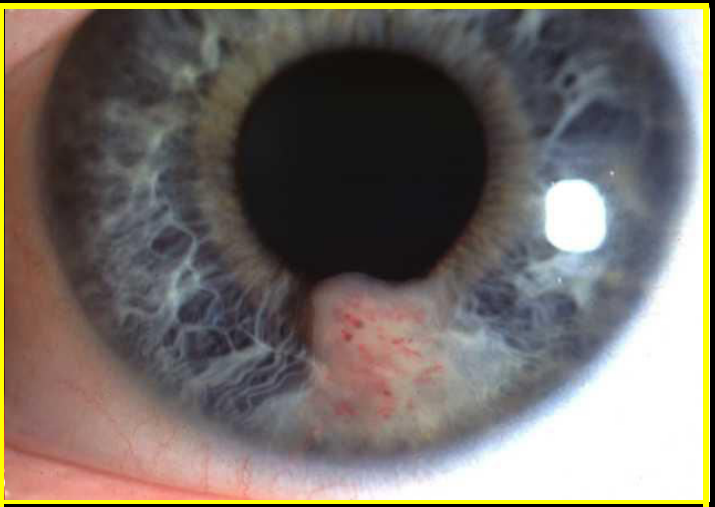
Iris Melanoma

1. Very rare - 8% of uveal melanomas
2. Presentation - fifth to sixth decades
3. Very slow growth
4. Low malignancy
5. Excellent prognosis

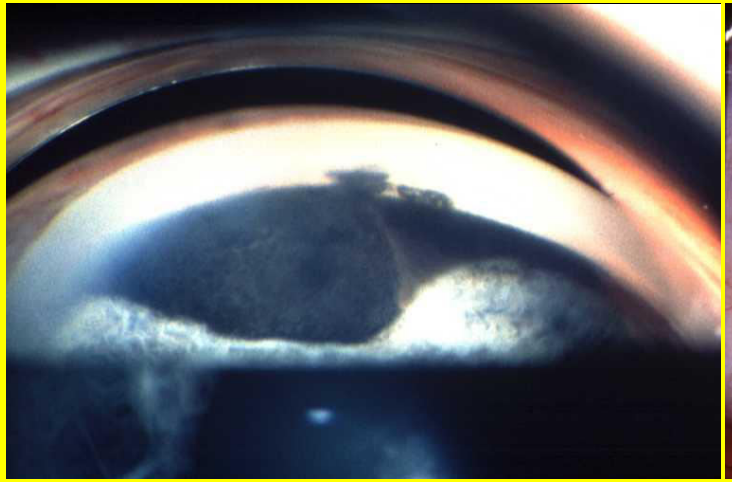
Iris melanoma



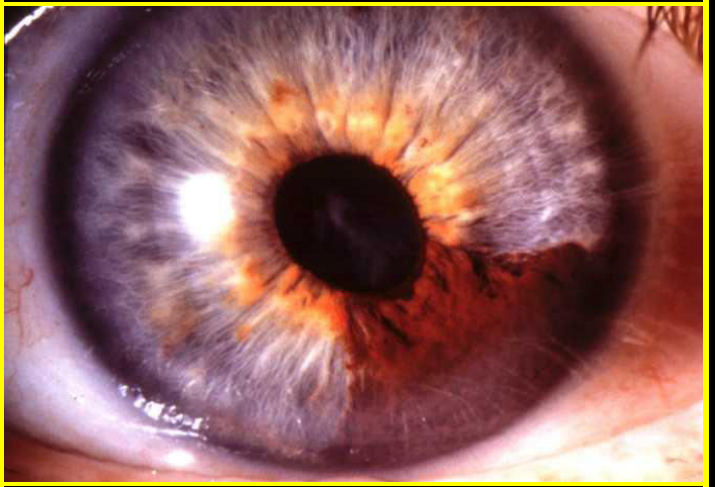
- Usually pigmented nodule at least 3 mm in diameter
- Invariably in inferior half of iris



- Occasionally non-pigmented
- Surface vascularization

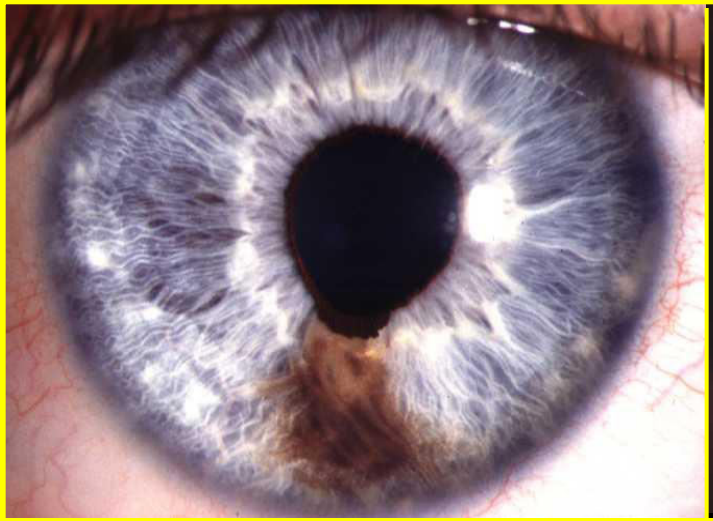


- Angle involvement may cause glaucoma

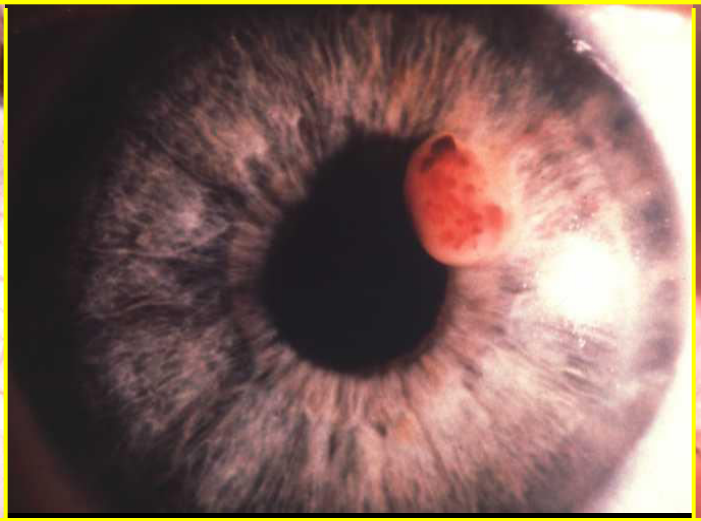


- Pupillary distortion, ectropion uveae and cataract

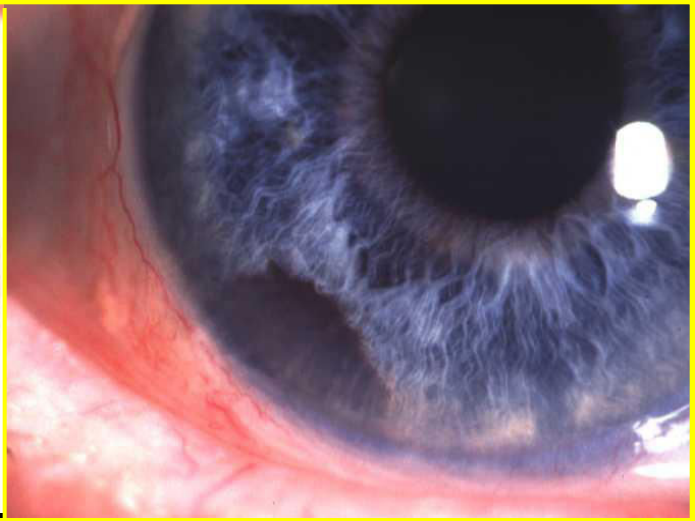
Differential diagnosis of iris melanoma



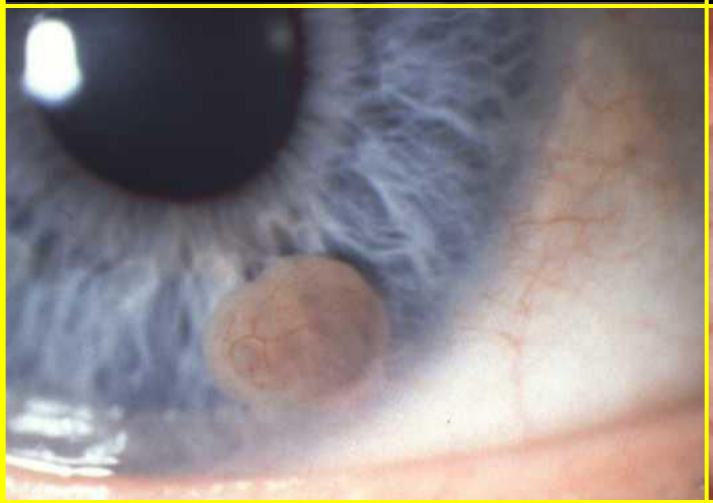
Large iris naevus distorting pupil



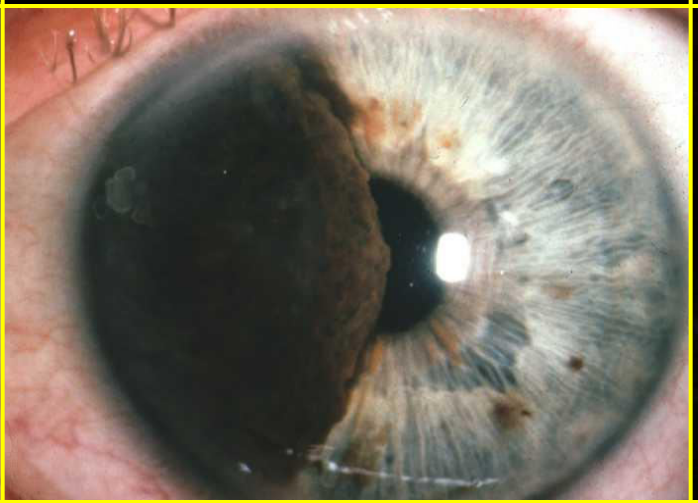
Leiomyoma



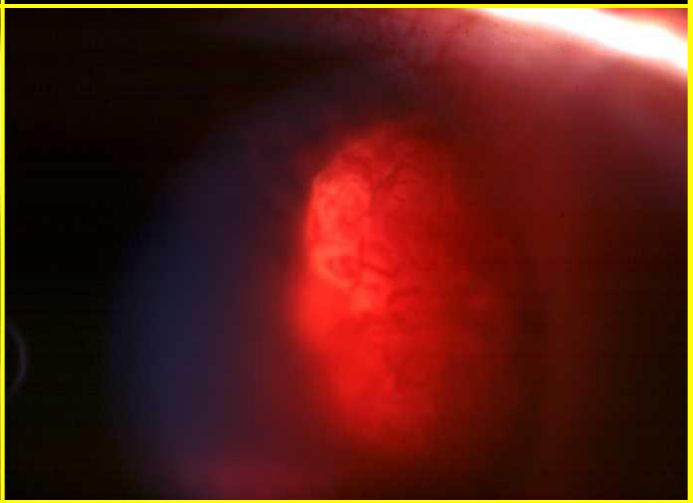
Adenoma of pigment epithelium



Primary iris cyst

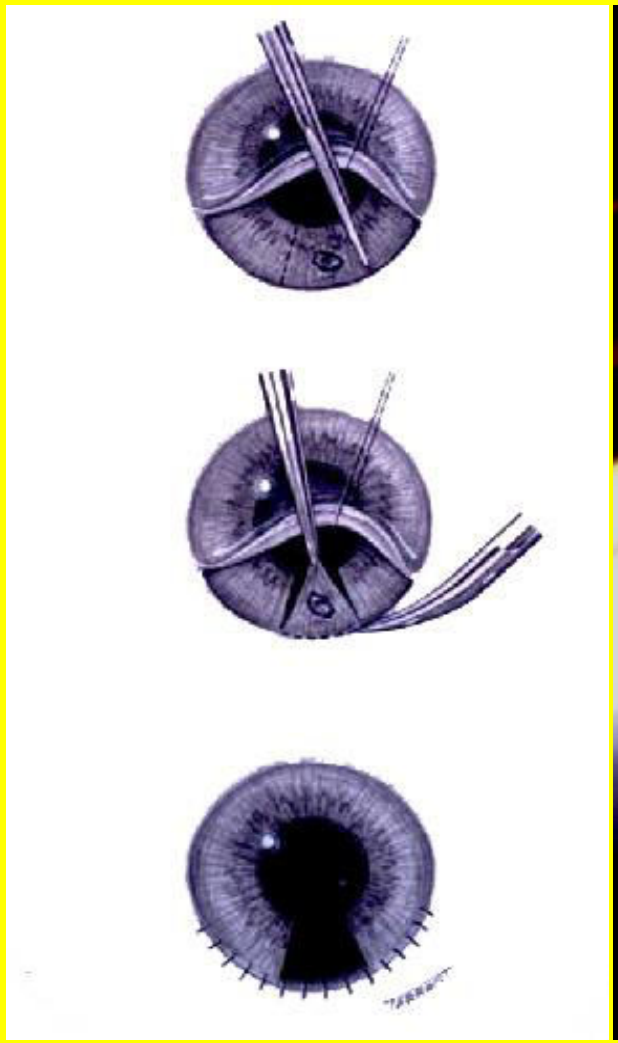


Ciliary body melanoma eroding iris root

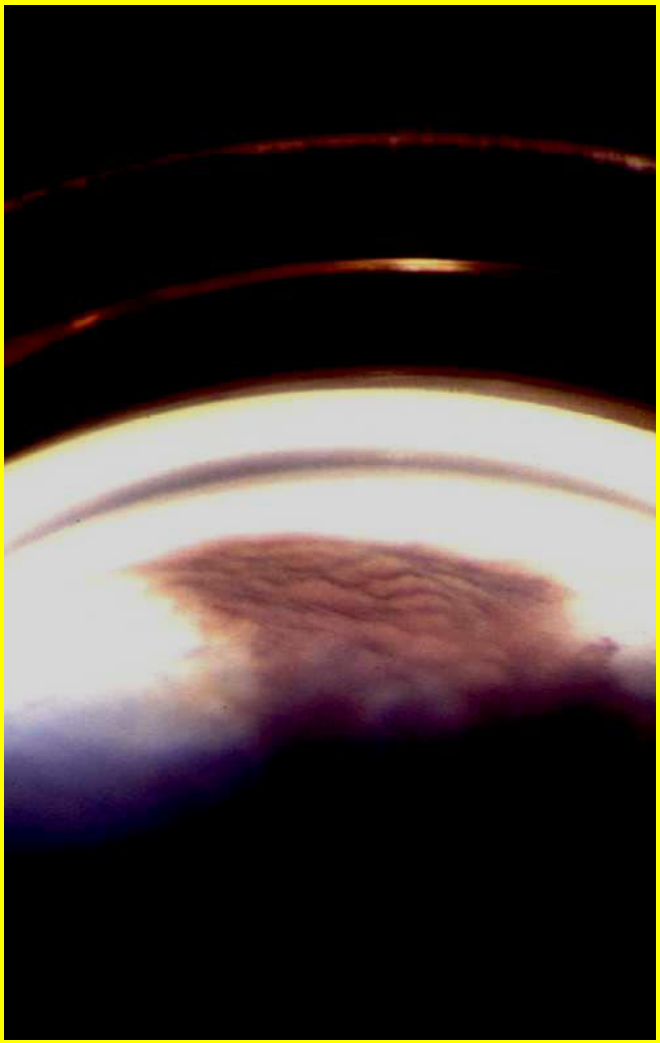


Metastasis to iris

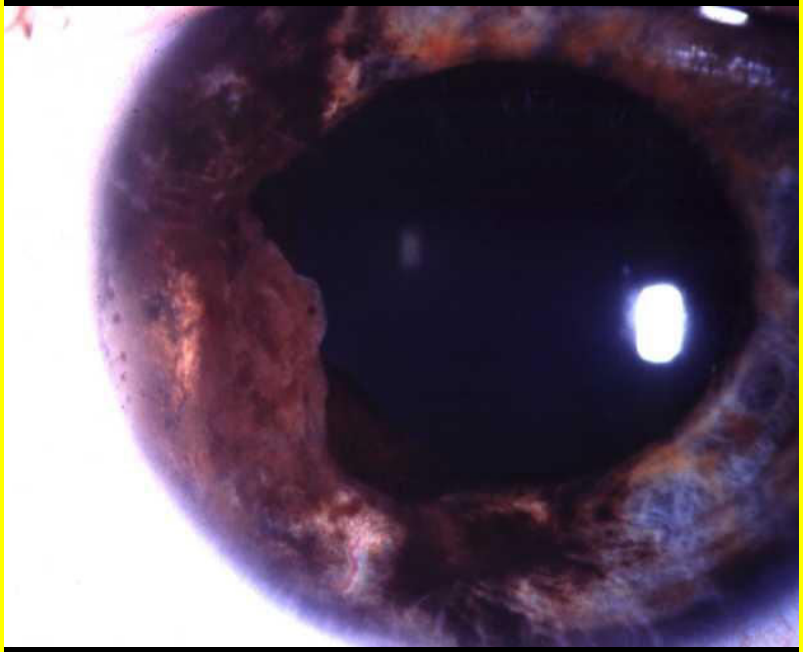
Treatment of iris melanoma



Small tumour
- broad iridectomy

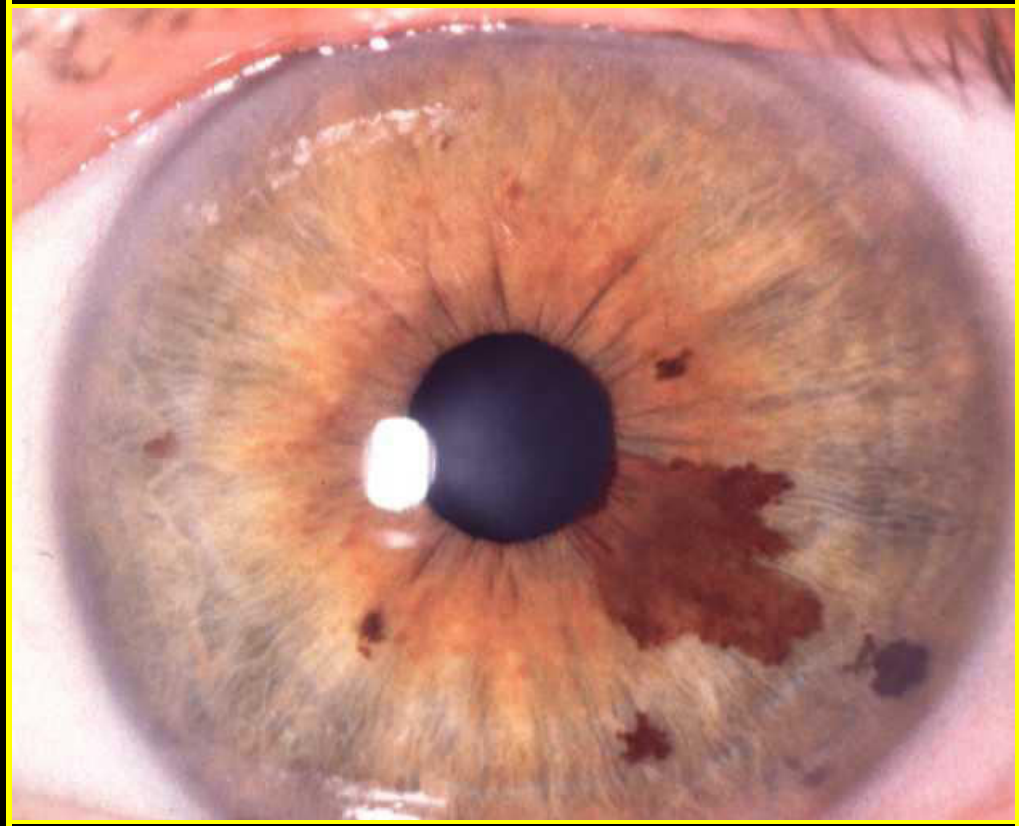


Angle invasion by tumour
- iridocyclectomy

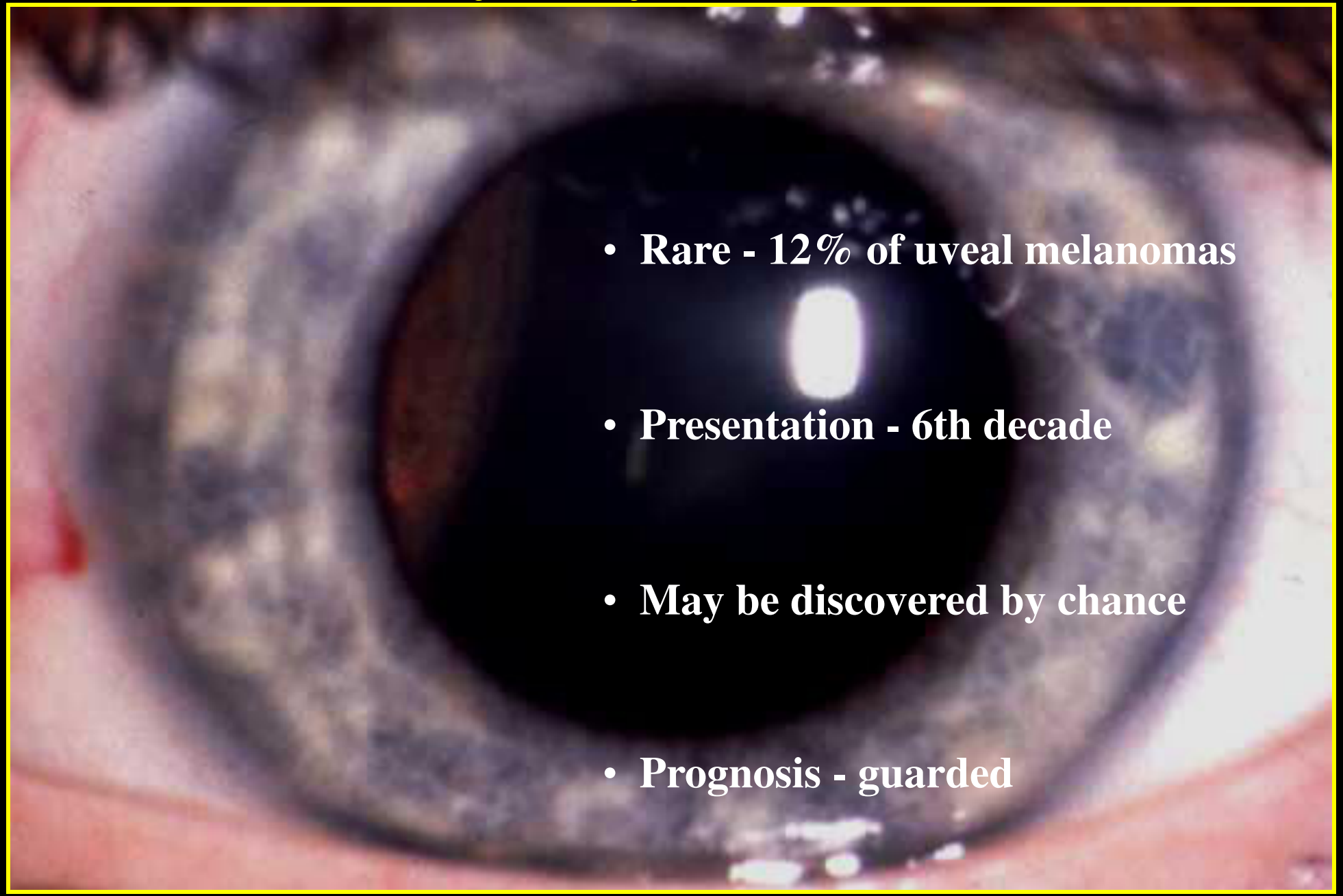


Non-resectable tumour
- radiotherapy or enucleation

Iris naevus

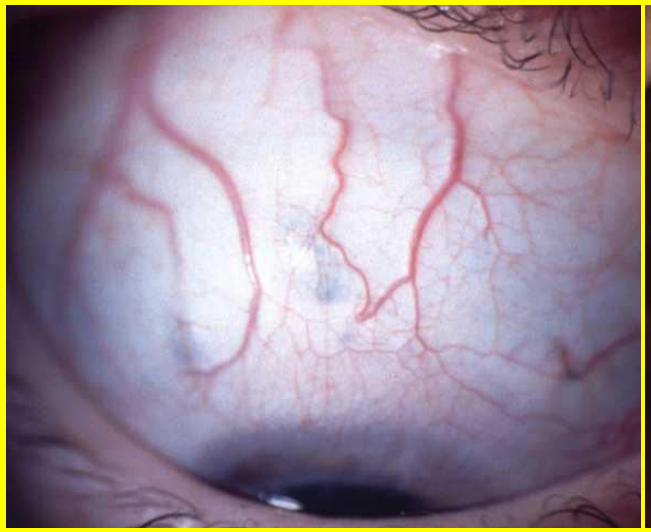
Typical	Diffuse
	
• Pigmented, flat or slightly elevated • Diameter usually less than 3 mm • Occasionally mild distortion of pupil and ectropion uvea	• Obscures iris crypts • May cause ipsilateral hyperchromic heterochromia • May be associated with Cogan-Reese syndrome

Ciliary body melanoma

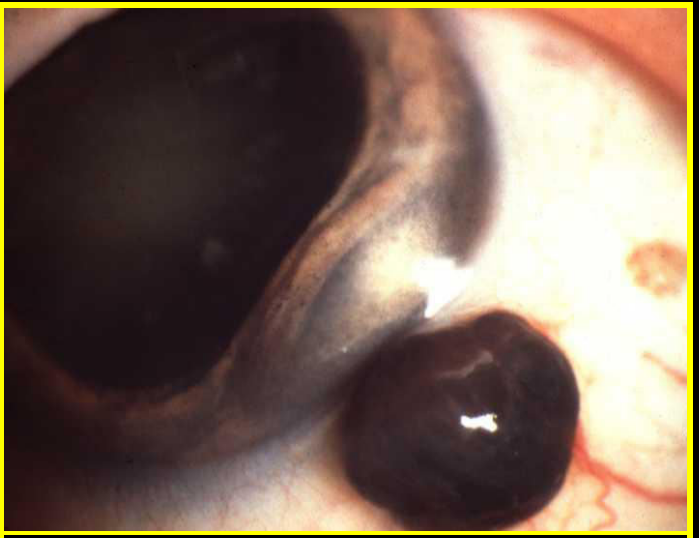


- Rare - 12% of uveal melanomas
- Presentation - 6th decade
- May be discovered by chance
- Prognosis - guarded

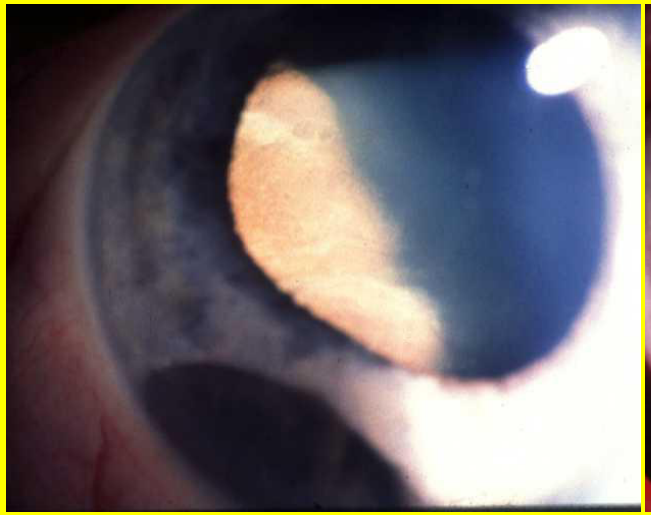
Signs of ciliary body melanoma



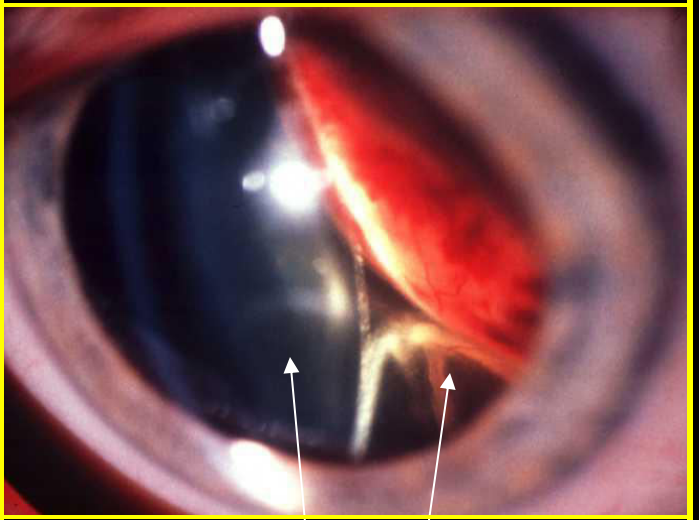
- Sentinel vessels



- Extraocular extension



- Erosion through iris root



- Lens subluxation or cataract
- Retinal detachment

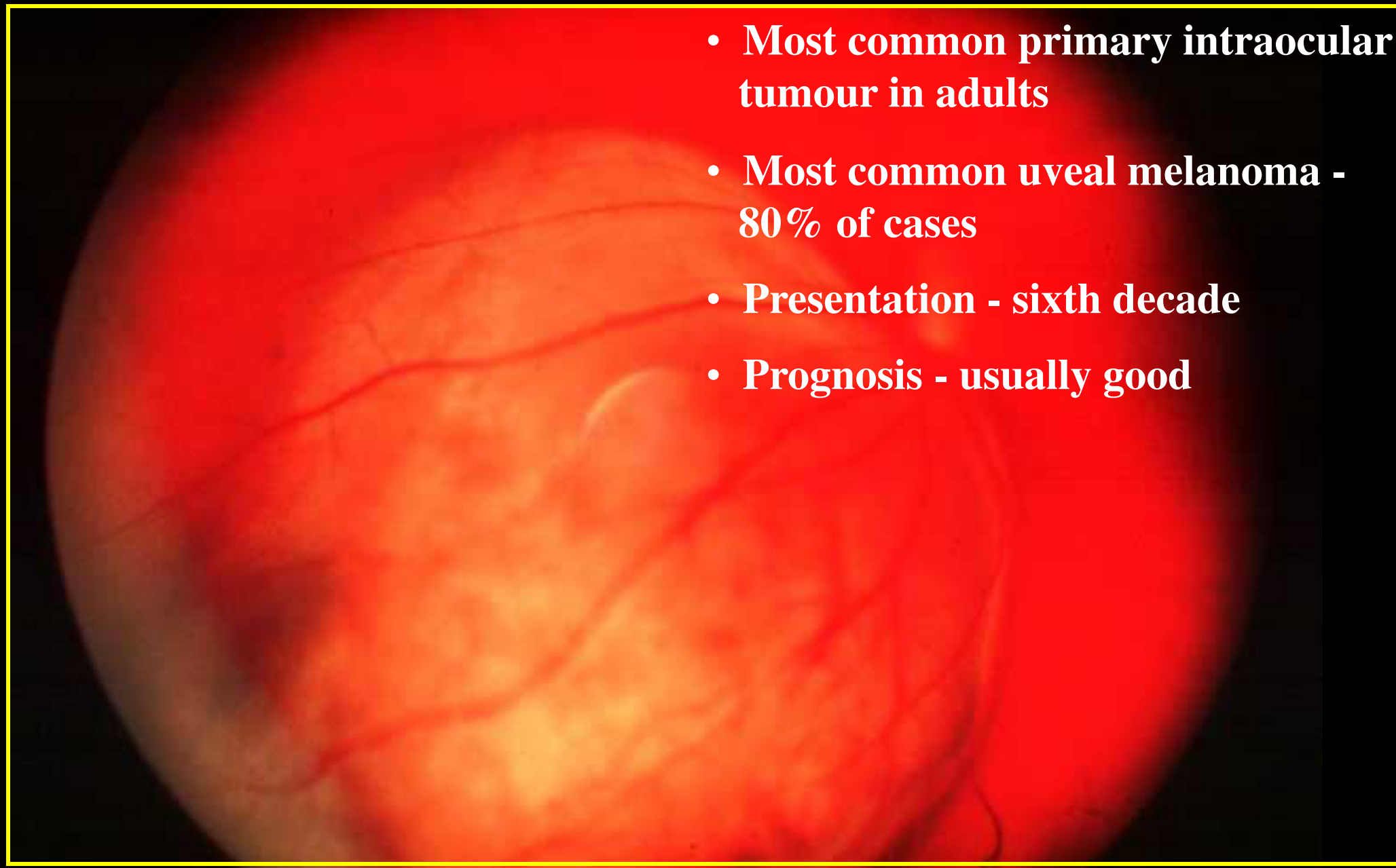
Treatment options of ciliary body melanoma

1. Iridocyclectomy
   - small or medium tumours

2. Enucleation
   - large tumours

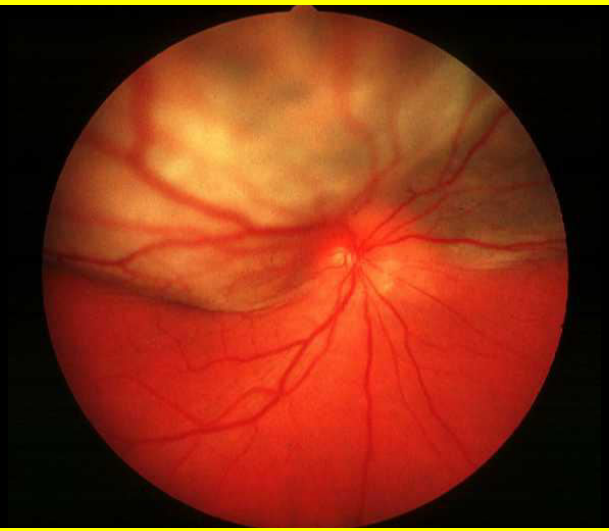
3. Radiotherapy
   - selected cases

Choroidal melanoma

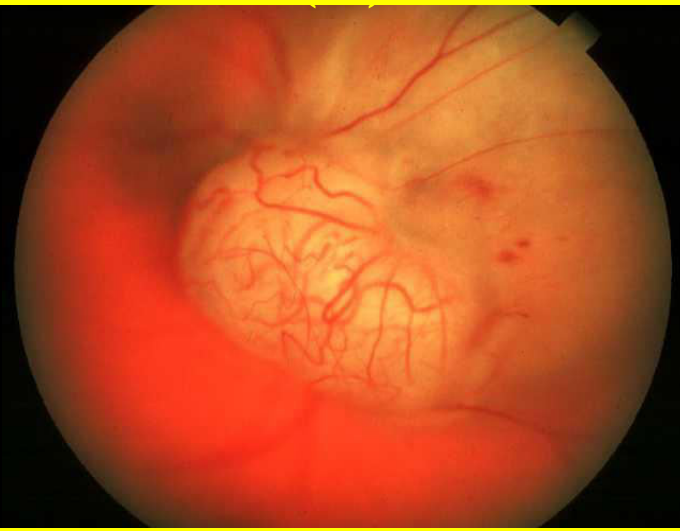


- Most common primary intraocular tumour in adults
- Most common uveal melanoma - 80% of cases
- Presentation - sixth decade
- Prognosis - usually good

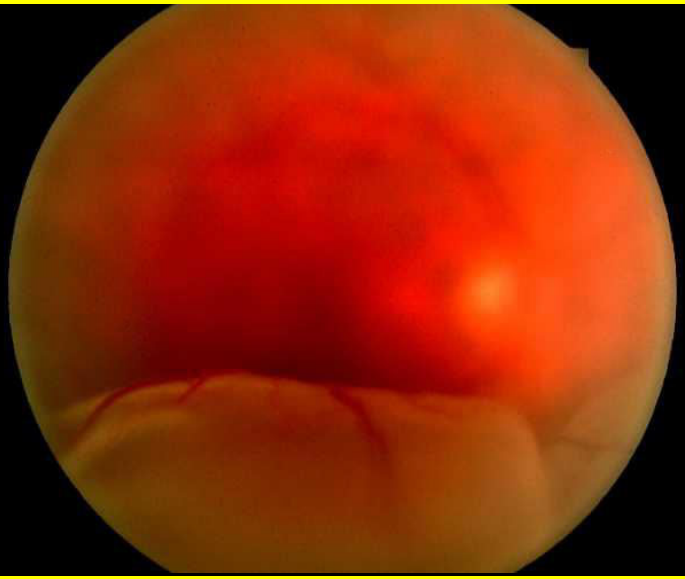
Choroidal melanoma (1)



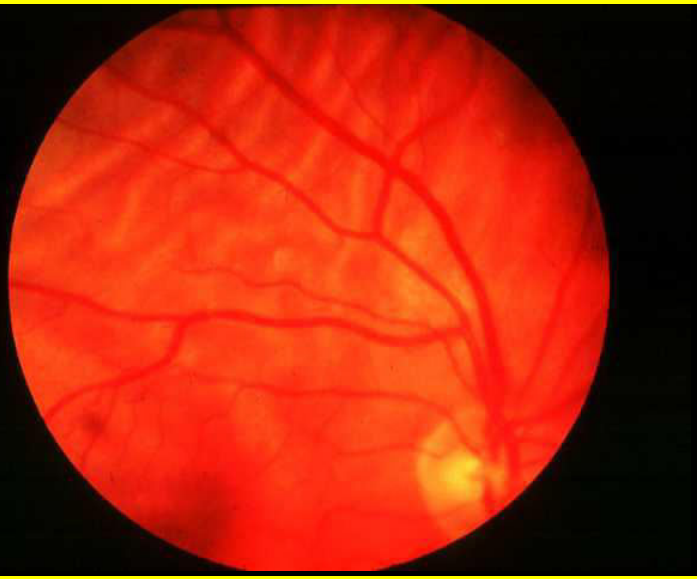
- Brown, elevated, subretinal mass



- Occasionally amelanotic
- Double circulation

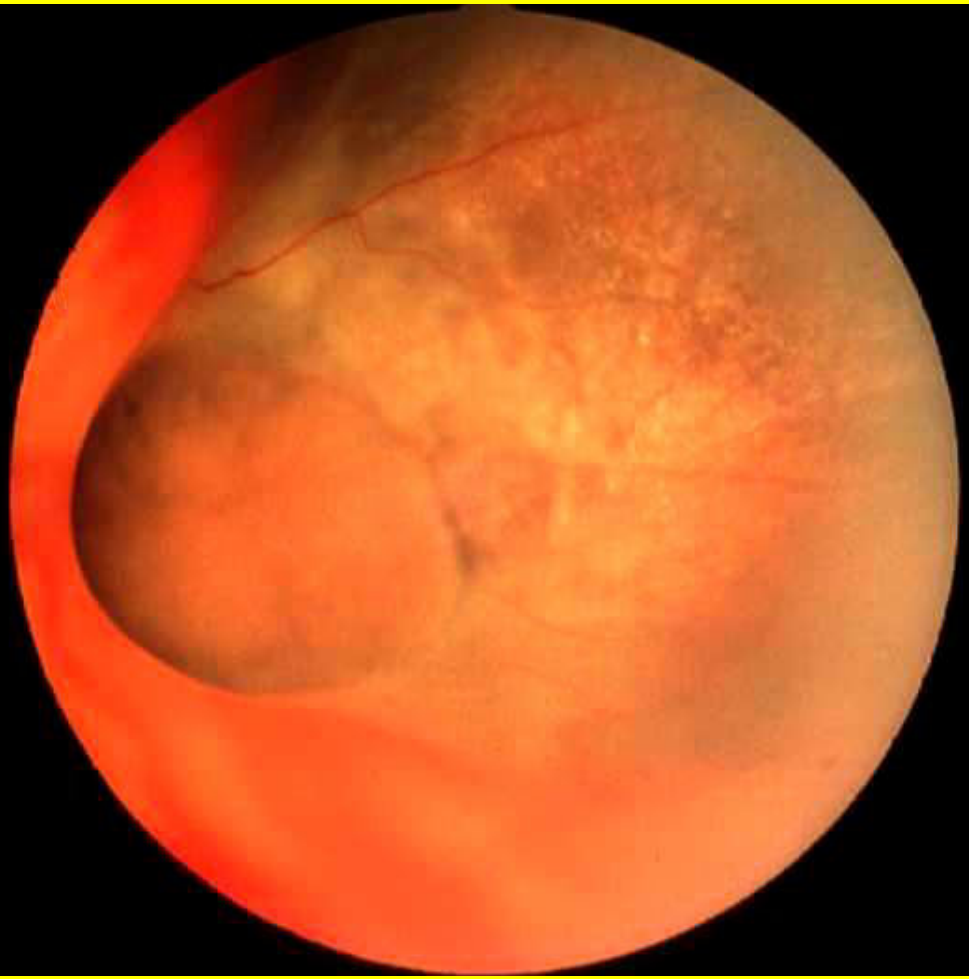


- Secondary retinal detachment

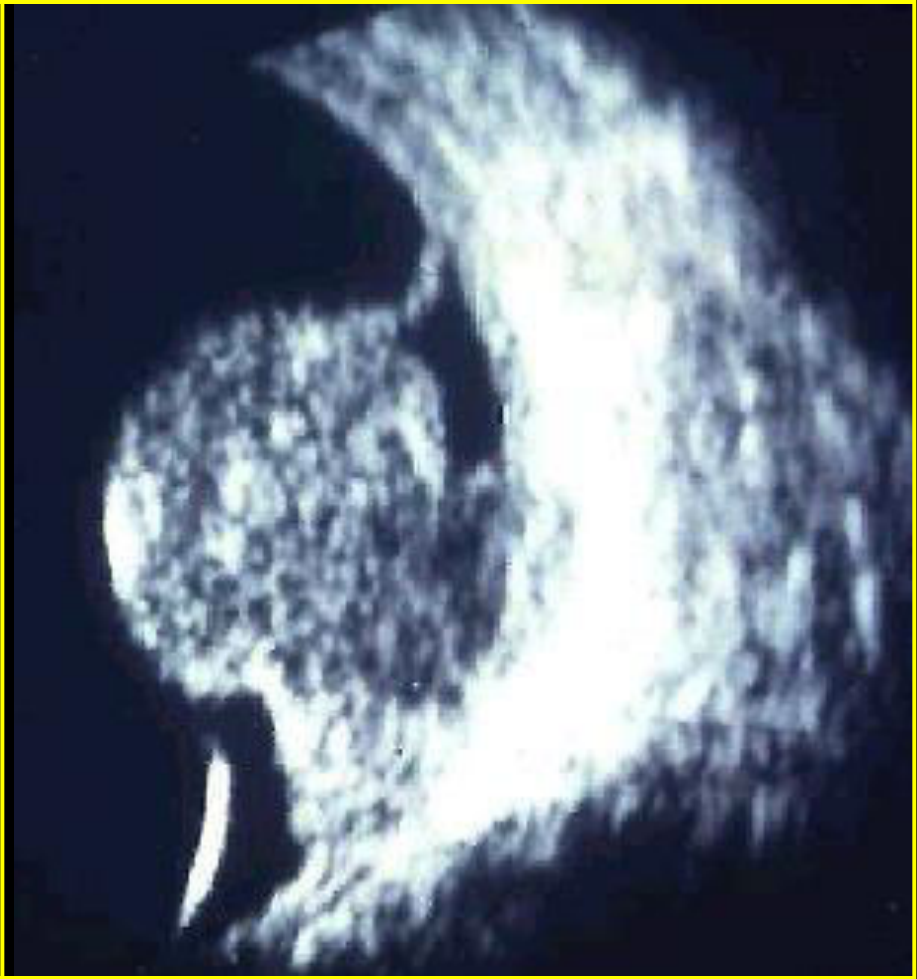


- Choroidal folds

Choroidal melanoma (2)

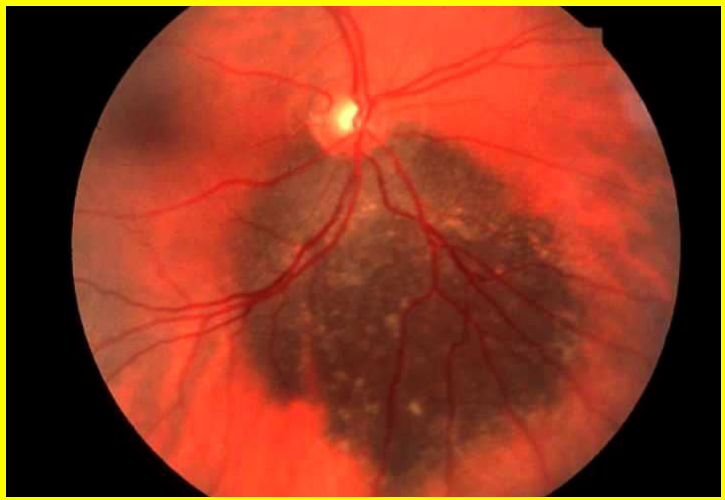


- Surface orange pigment (lipofuscin) is common
- Mushroom-shaped if breaks through Bruch's membrane

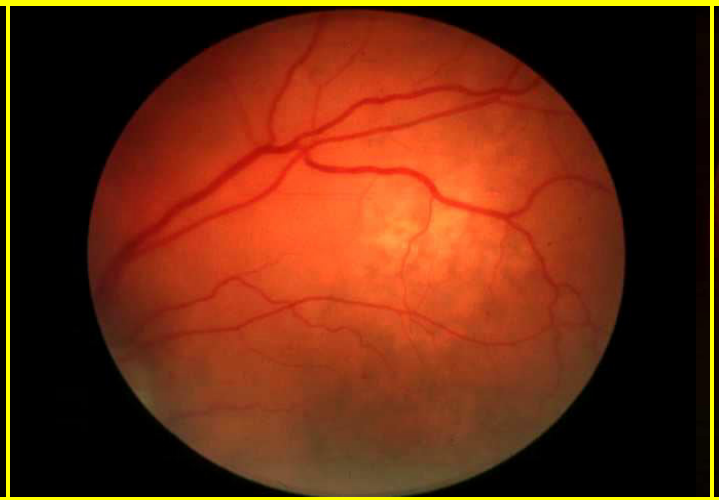


- Ultrasound - acoustic hollowness, choroidal excavation and orbital shadowing

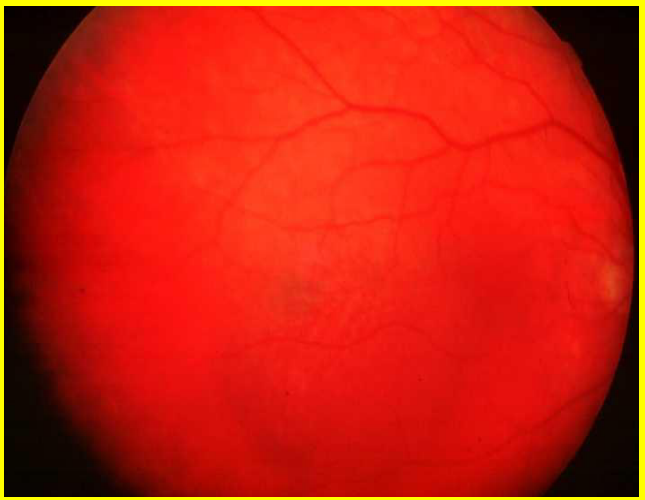
Differential diagnosis of choroidal melanoma



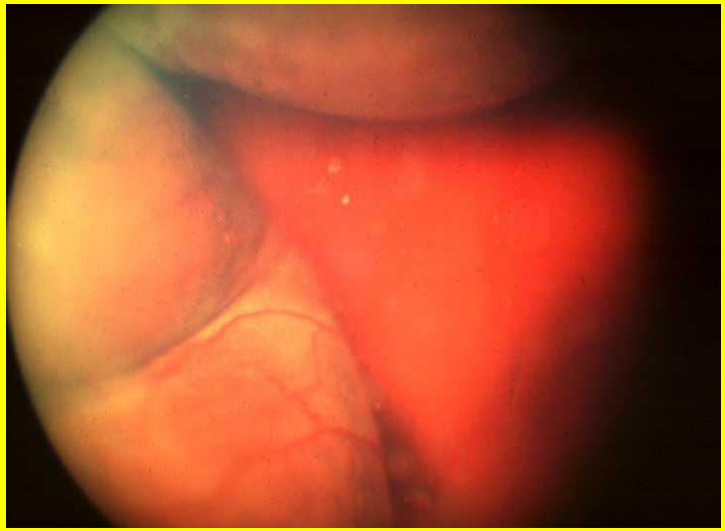
Large choroidal naevus



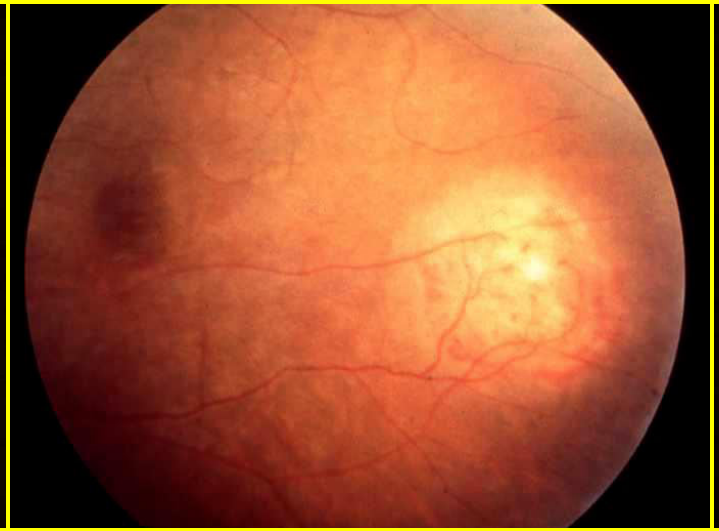
Metastatic tumour



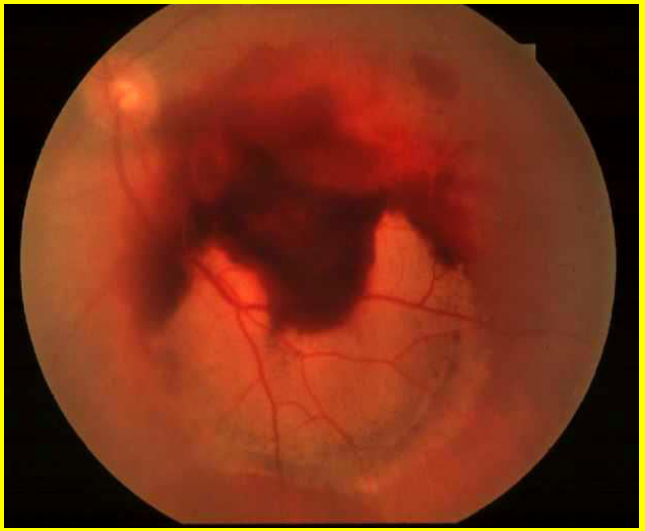
Localized choroidal haemangioma



Choroidal detachment



Choroidal granuloma



Dense sub-retinal or sub-RPE haemorrhage

Treatment of choroidal melanoma

1. **Brachytherapy**
   - less than 10 mm elevation and 20 mm diameter

2. **Charged particle irradiation**
   - if unsuitable for brachytherapy

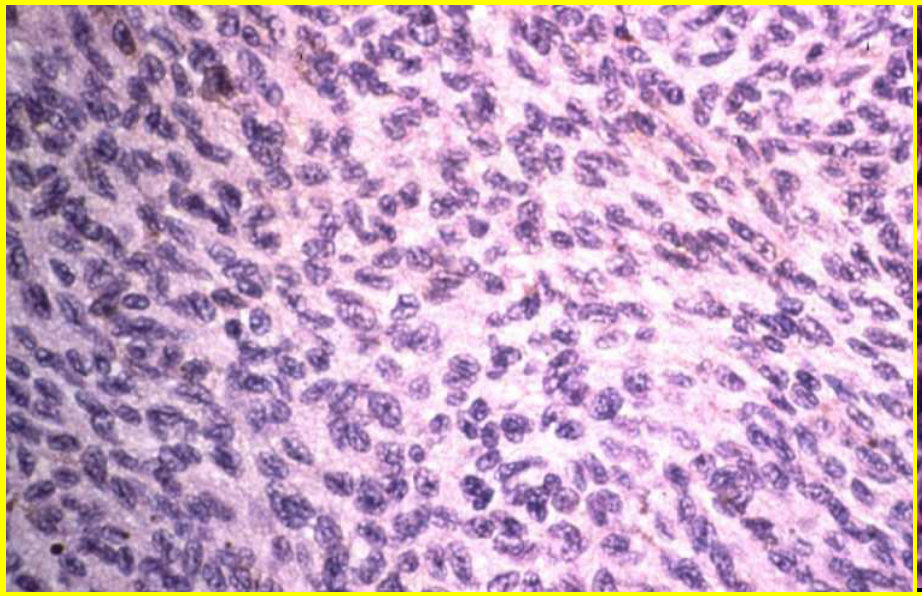
3. **Transpupillary thermotherapy**
   - selected small tumours

4. **Trans-scleral local resection**
   - carefully selected tumours less than 16 mm in diameter

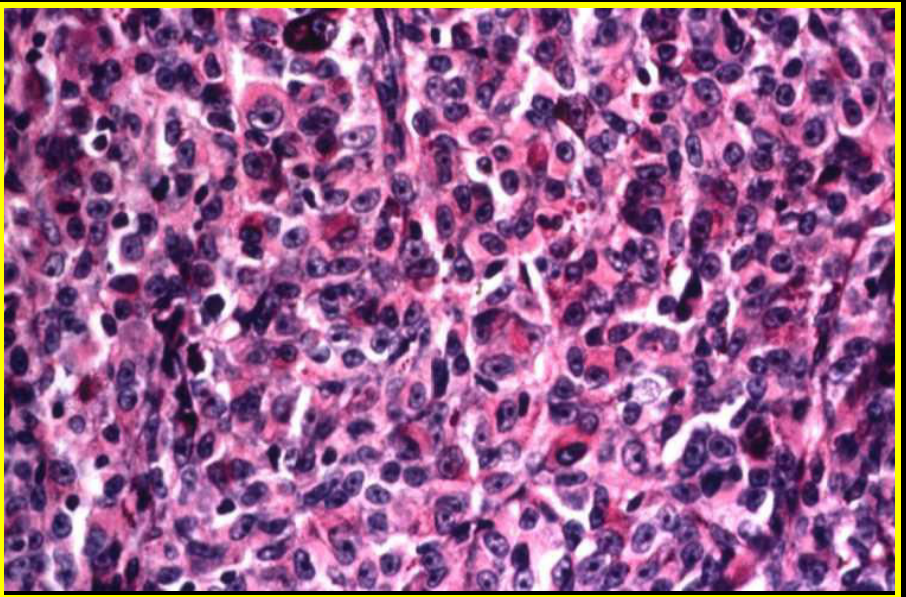
5. **Enucleation**
   - very large tumours, particularly if useful vision lost

6. **Exenteration**
   - extraocular extension

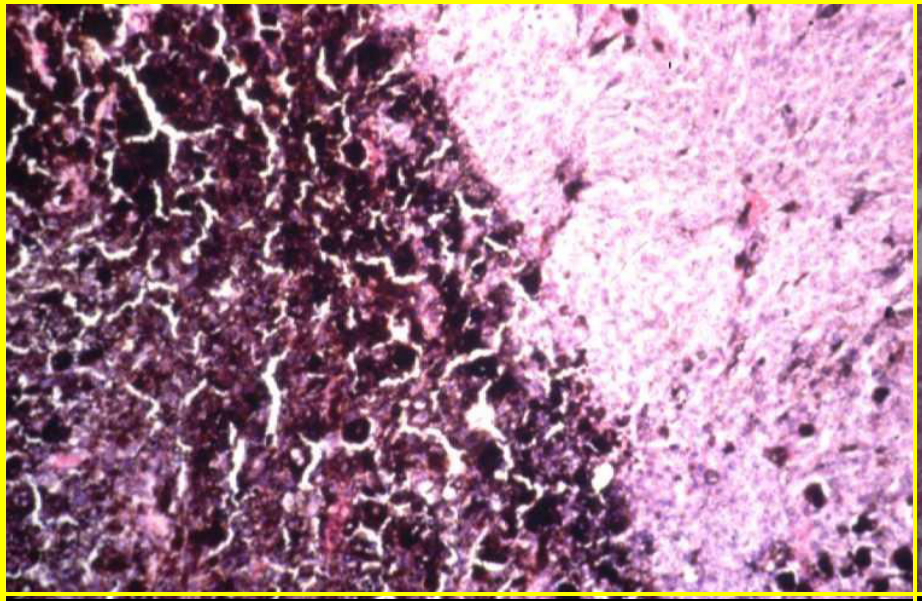
Histological classification of uveal melanomas



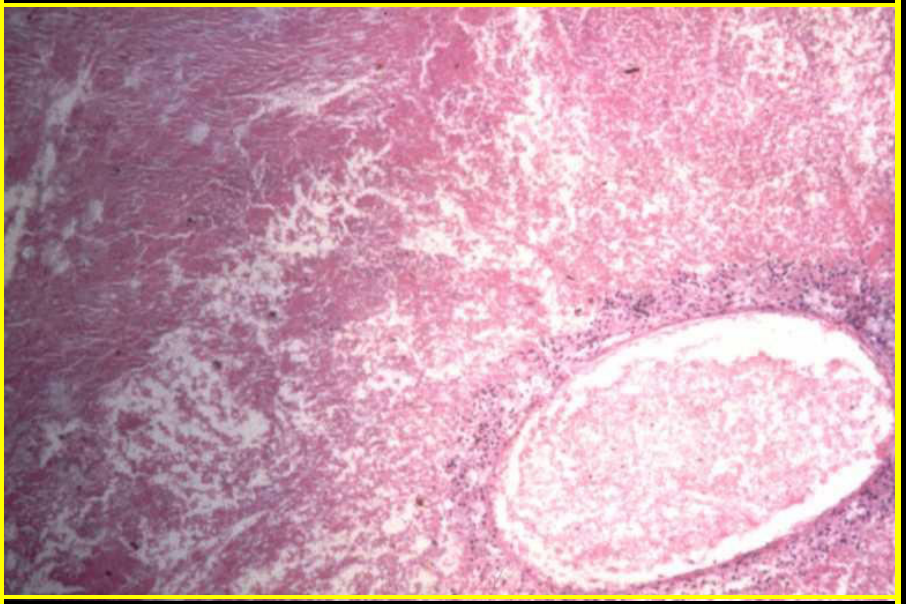
Spindle cell (45%)



Pure epithelioid cell (5%)



Mixed cell (45%)

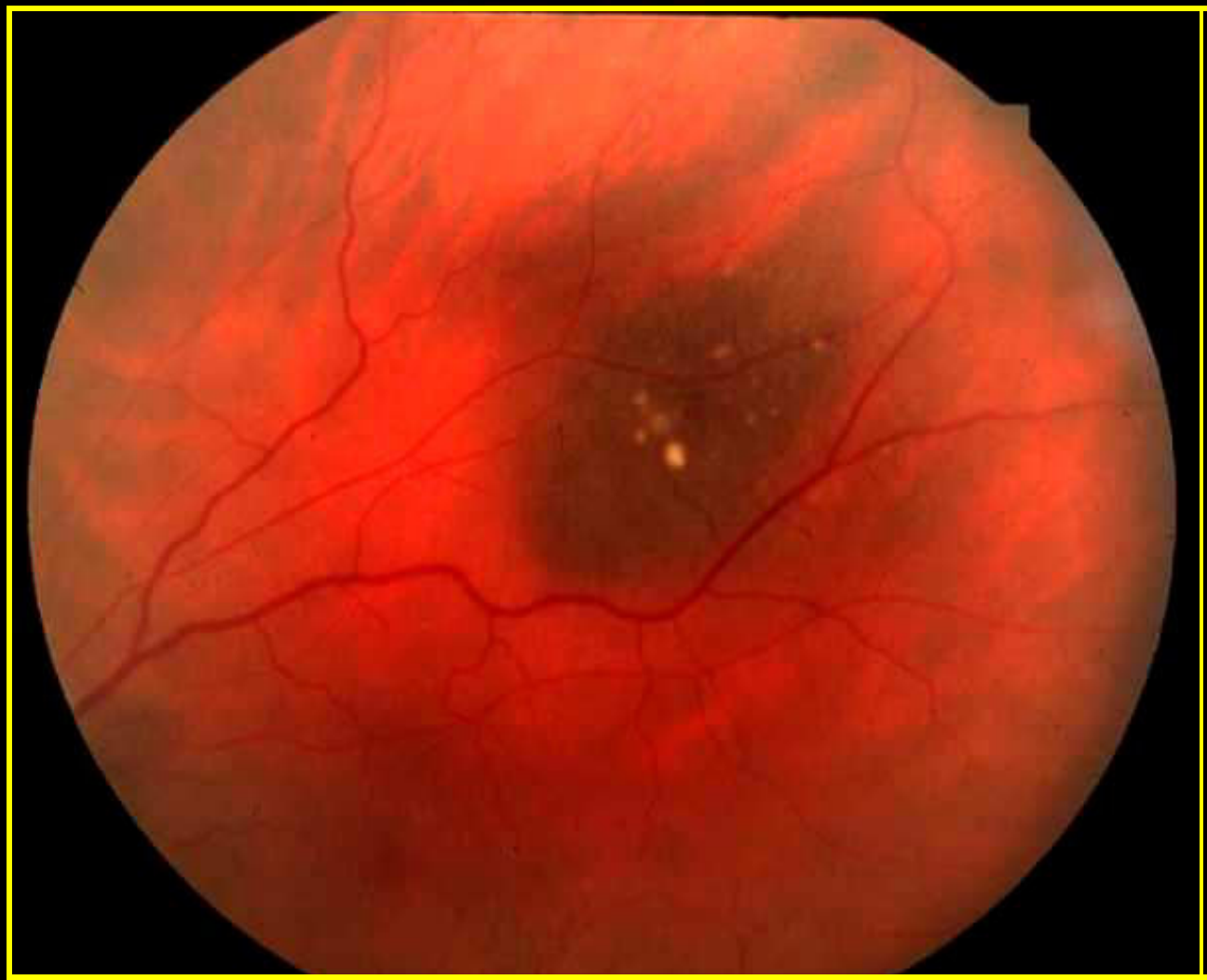


Necrotic (5%)

Poor Prognostic Factors of Uveal Melanomas

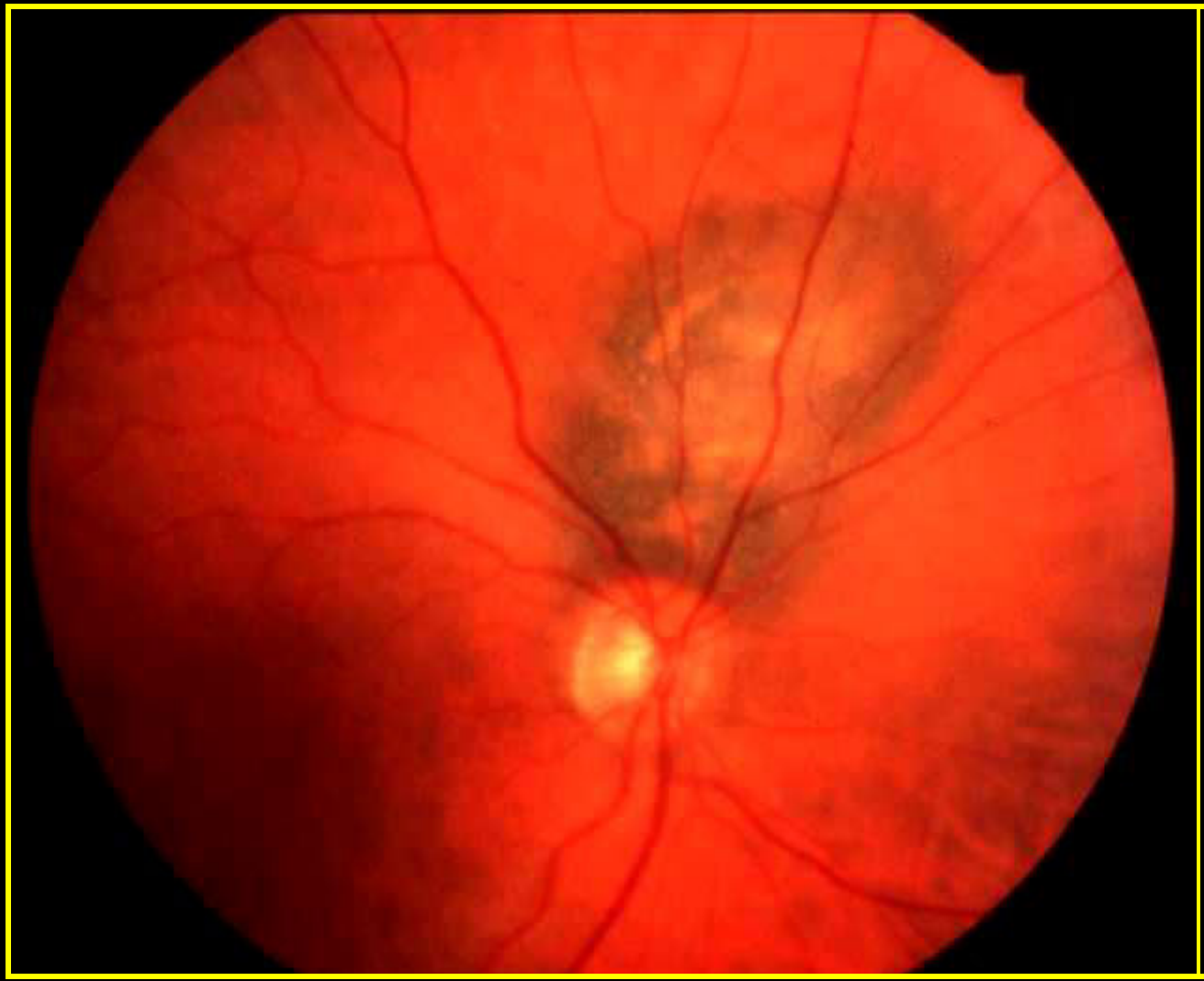
1. **Histological**
   - Epithelioid cells
   - Closed vascular loops
   - Lymphocytic infiltration
2. **Large size**
3. **Extrascleral extension**
4. **Anterior location**
5. **Age over 65 years**

Typical choroidal naevus



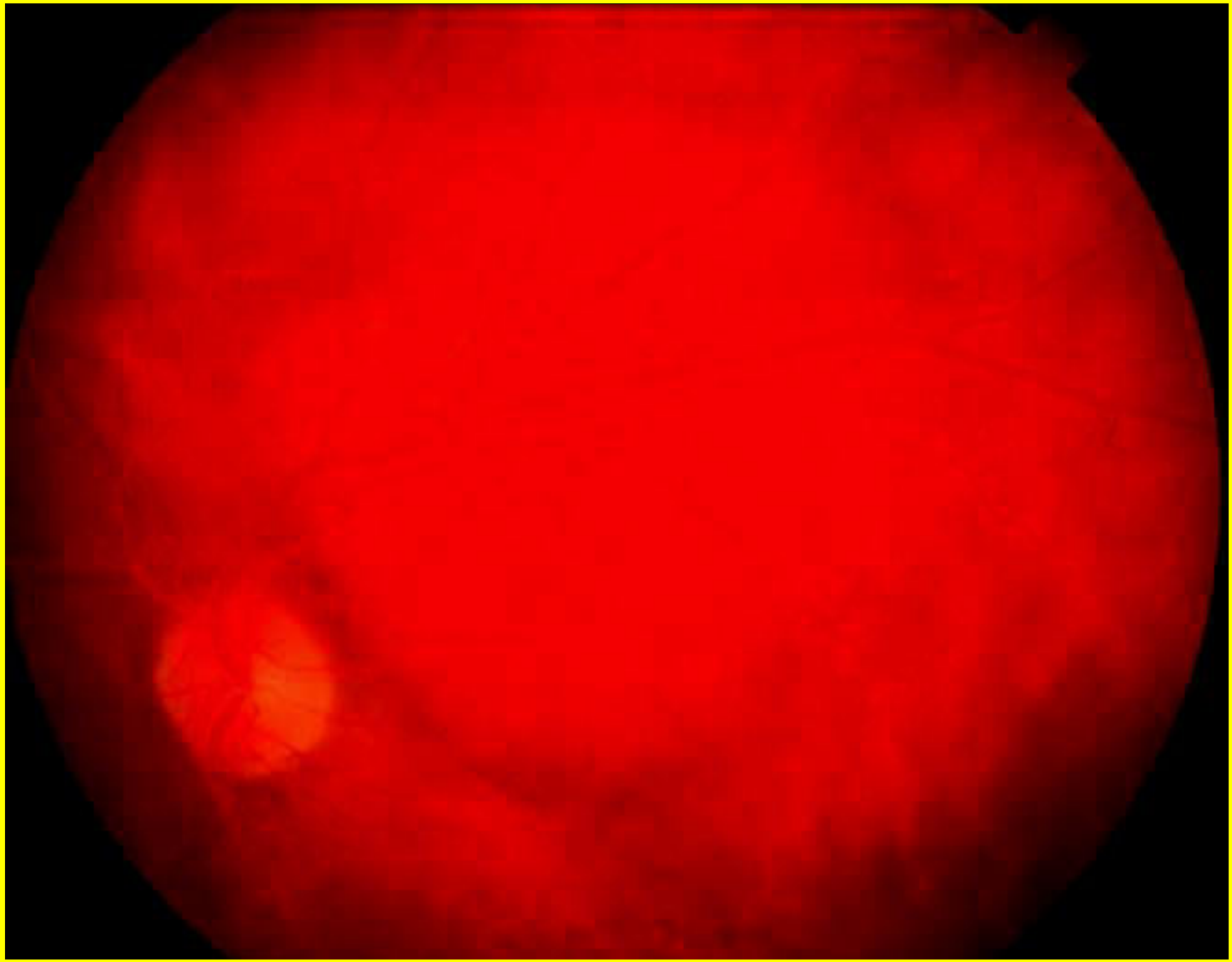
- Common - 2% of population
- Round slate-grey with indistinct margins
- Surface drusen
- Flat or slightly elevated
- Diameter less than 5 mm
- Location - anywhere
- Asymptomatic

Suspicious choroidal naevus



- Diameter more than 5 mm
- Elevation 2 mm or more
- Surface lipofuscin
- Posterior margin within 3 mm of disc
- May have symptoms due to serous fluid

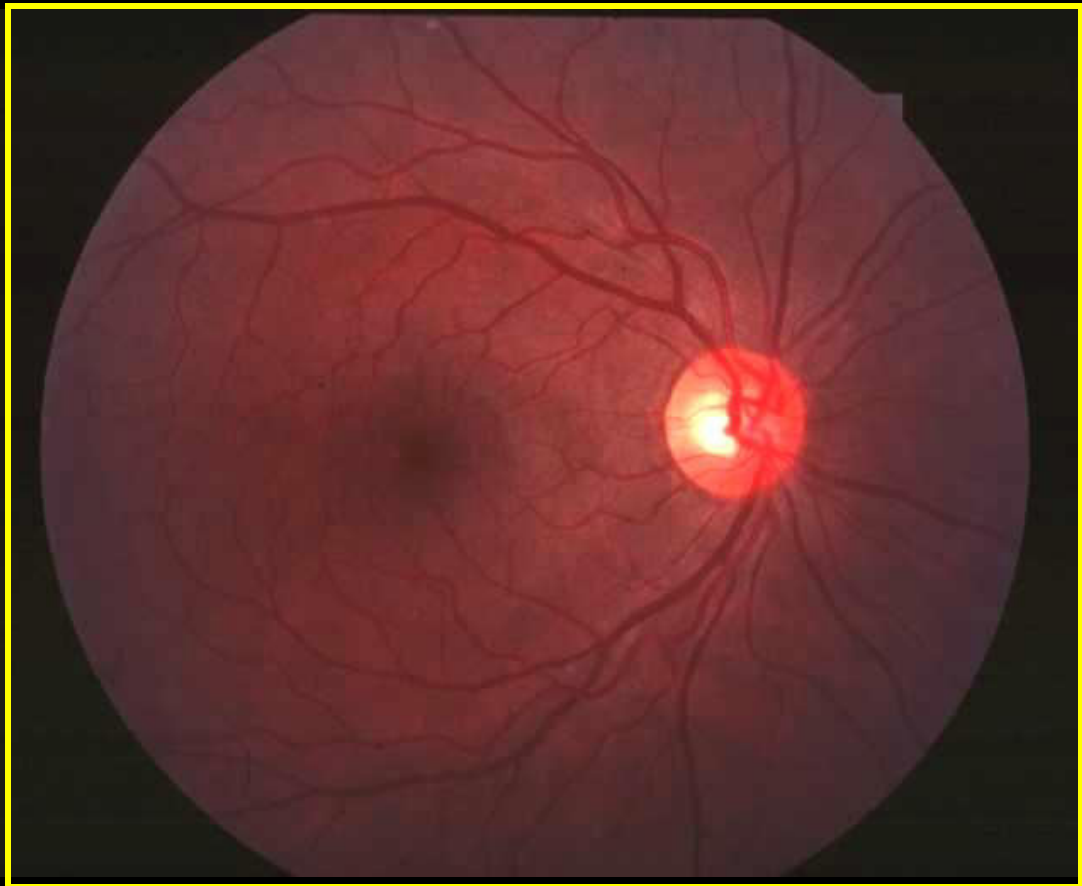
Circumscribed choroidal haemangioma



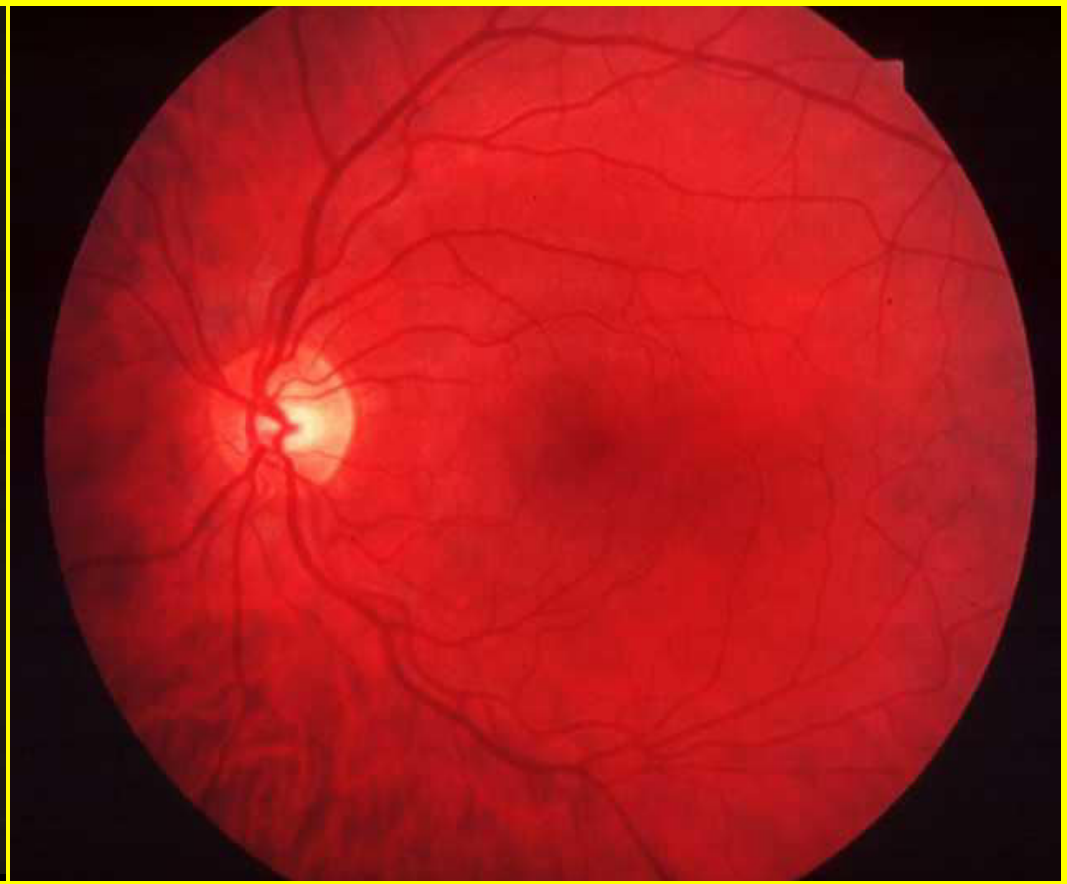
- Presentation - adult life
- Dome-shaped or placoid, red-orange mass
- Commonly at posterior pole
- Between 3 and 9 mm in diameter
- May blanch with external globe pressure
- Surface cystoid retinal degeneration
- Exudative retinal detachment
- Treatment - radiotherapy if vision threatened

Diffuse choroidal haemangioma

Typically affects patients with Sturge-Weber syndrome



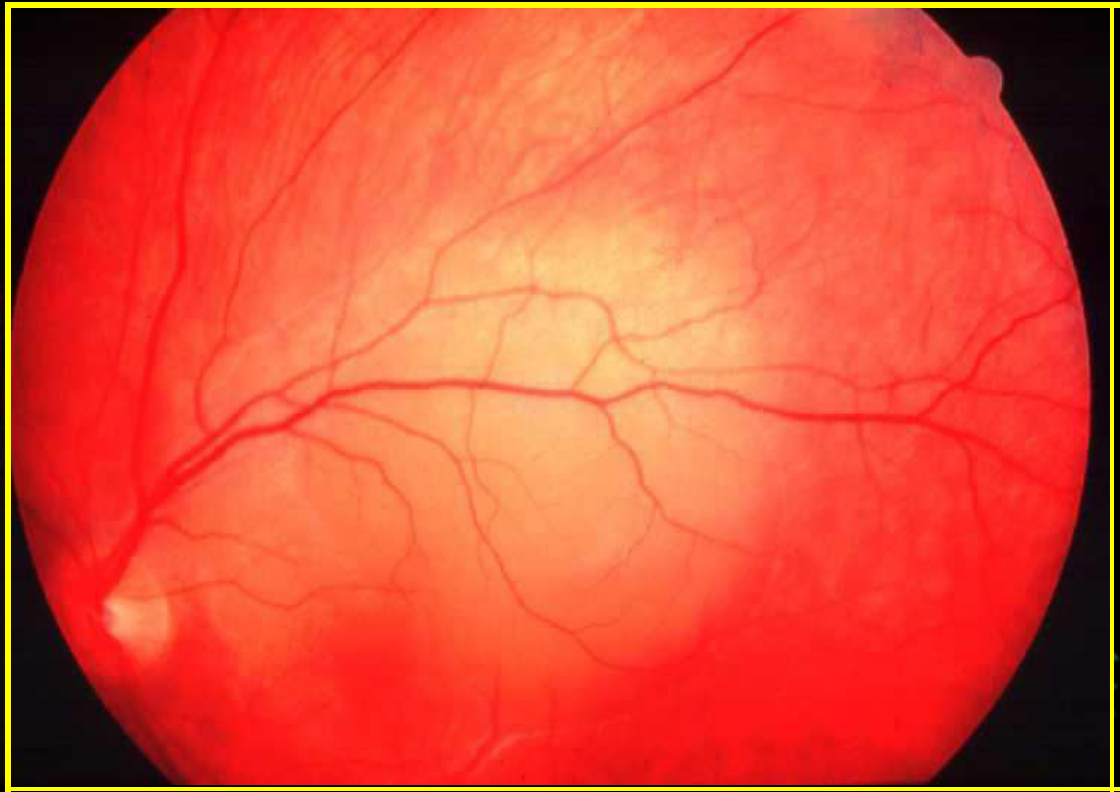
Can be missed unless compared with normal fellow eye as shown here



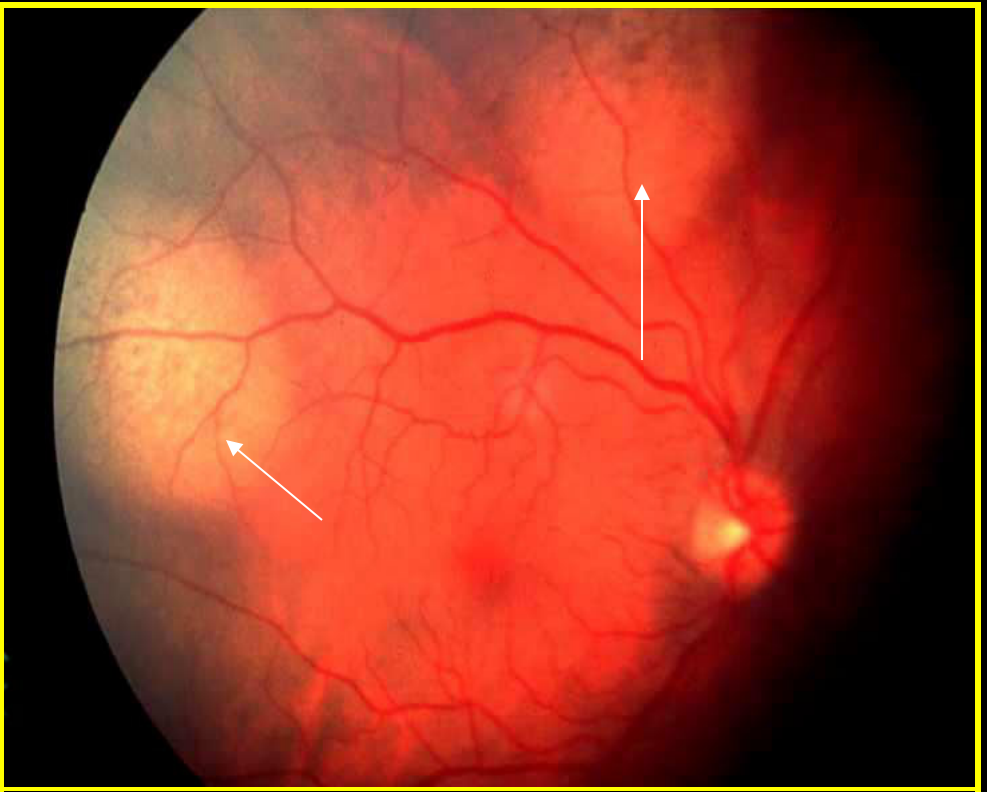
Diffuse thickening, most marked at posterior pole

Choroidal metastatic carcinoma

Most frequent primary site is breast in women and bronchus in both sexes

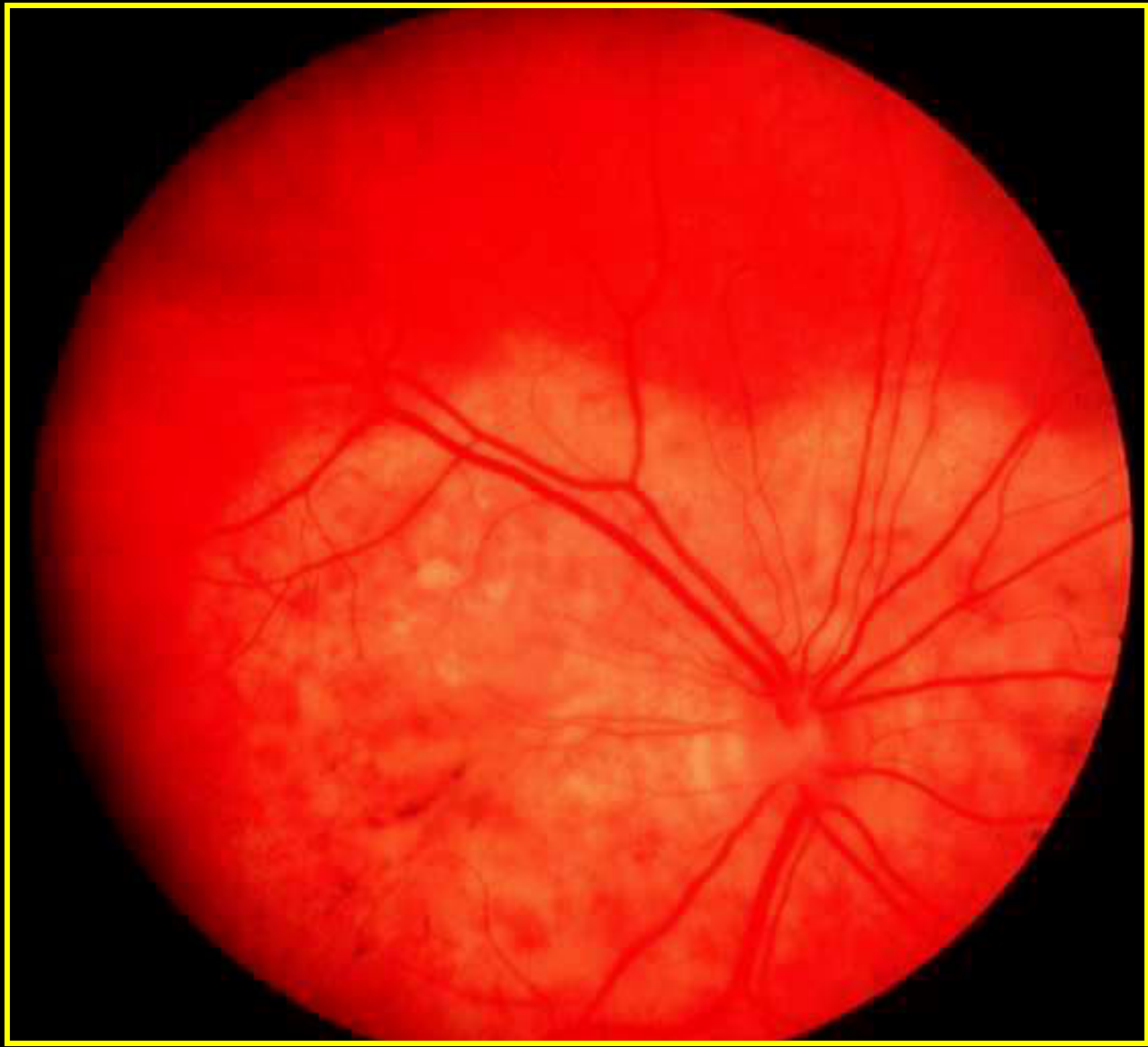


- Fast-growing, creamy-white, placoid lesion
- Most frequently at posterior pole



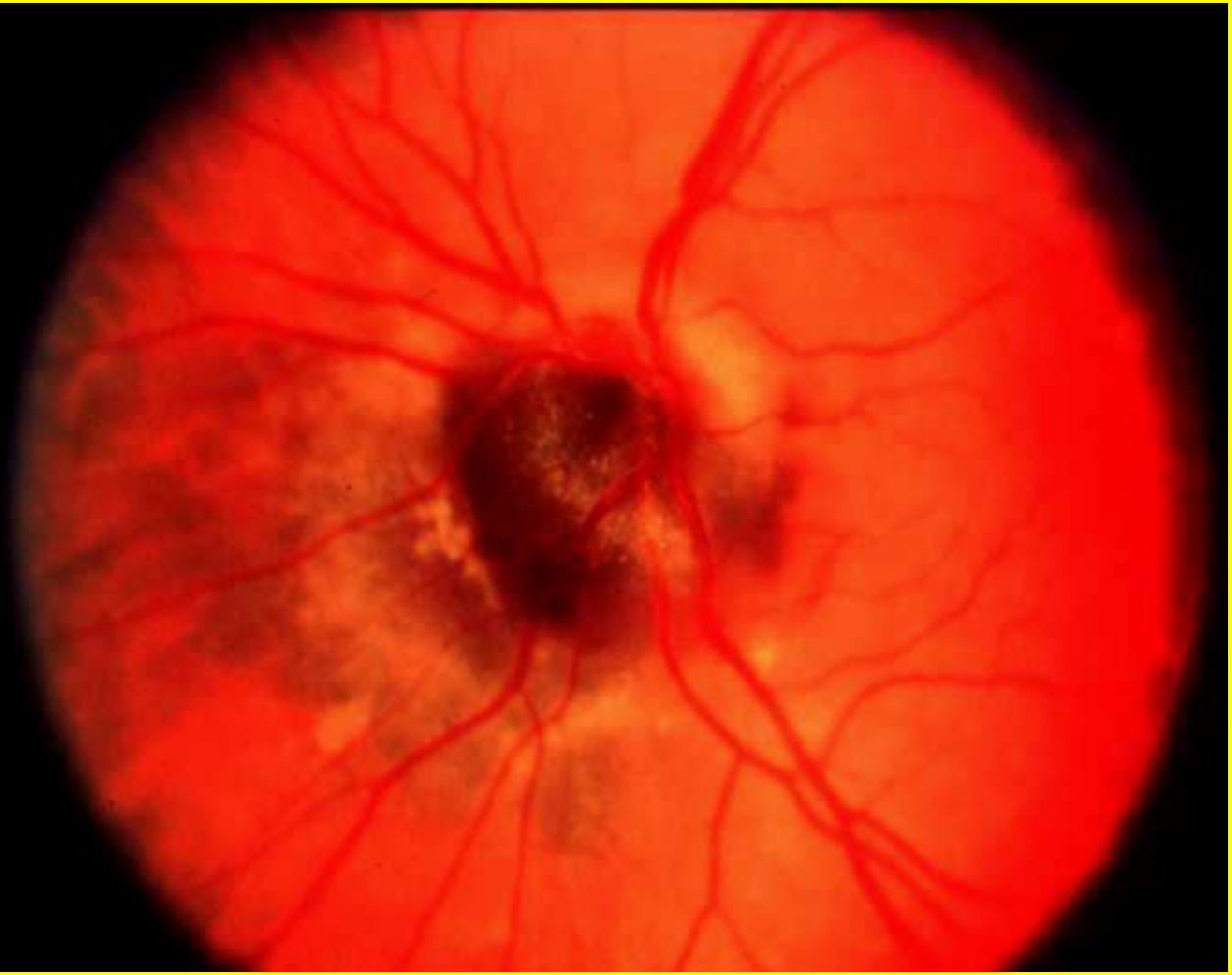
- Deposits may be multiple
- Bilateral in 10-30%

Choroidal osseous choristoma



- Very rare, benign, slow-growing ossifying tumour
- Typically affects young women
- Orange-yellow, oval lesion
- Well-defined, scalloped, geographical borders
- Most commonly peripapillary or at posterior pole
- Diffuse mottling of RPE
- Bilateral in 25%

Melanocytoma



- Affects dark skinned individuals
- Usually asymptomatic
- Most frequently affects optic nerve head
- Black lesion with feathery edges