INDIRECT OPHTHALMOSCOPY

The First Step

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INDIRECT OPHTHALMOSCOPY

First step for successful scleral buckle surgery

- Case selection
- Choice of buckle & surgical technique
- Reduced operative time

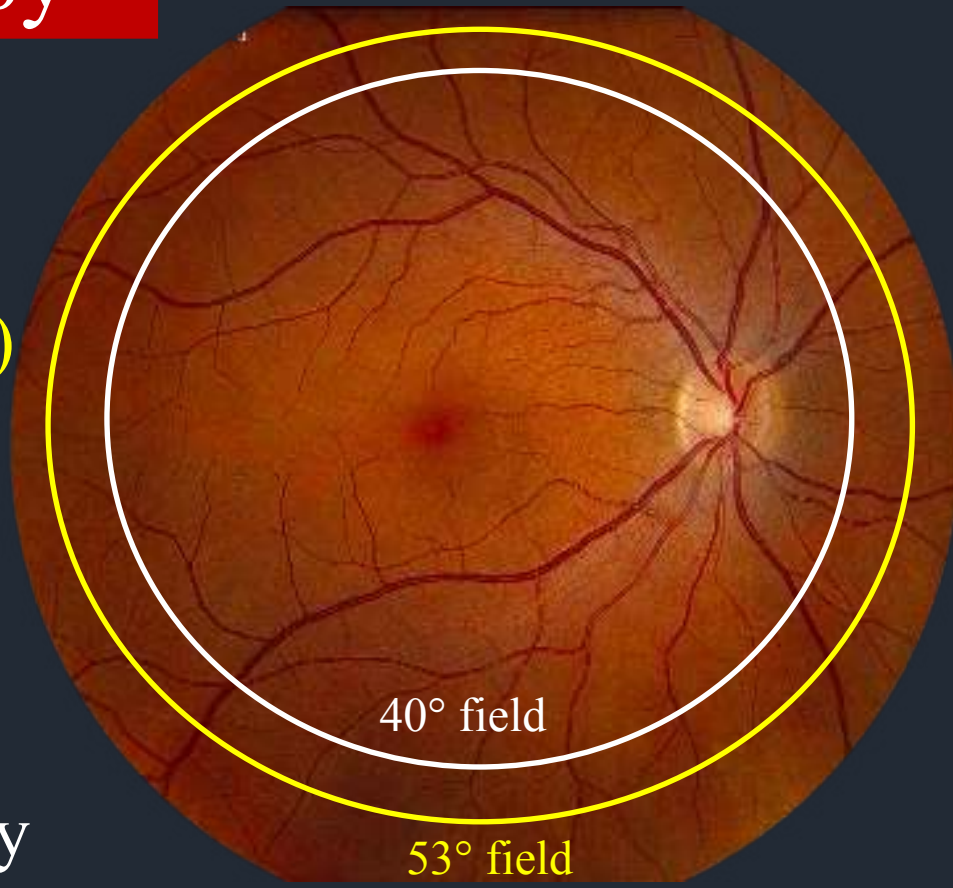
INDIRECT OPHTHALMOSCOPY

Advantages of indirect ophthalmoscopy

- Stereopsis – Large field

+20 D lens (40° field – 3X magnification)

+28D/+30D lens (53° field – 2.2X magnification)

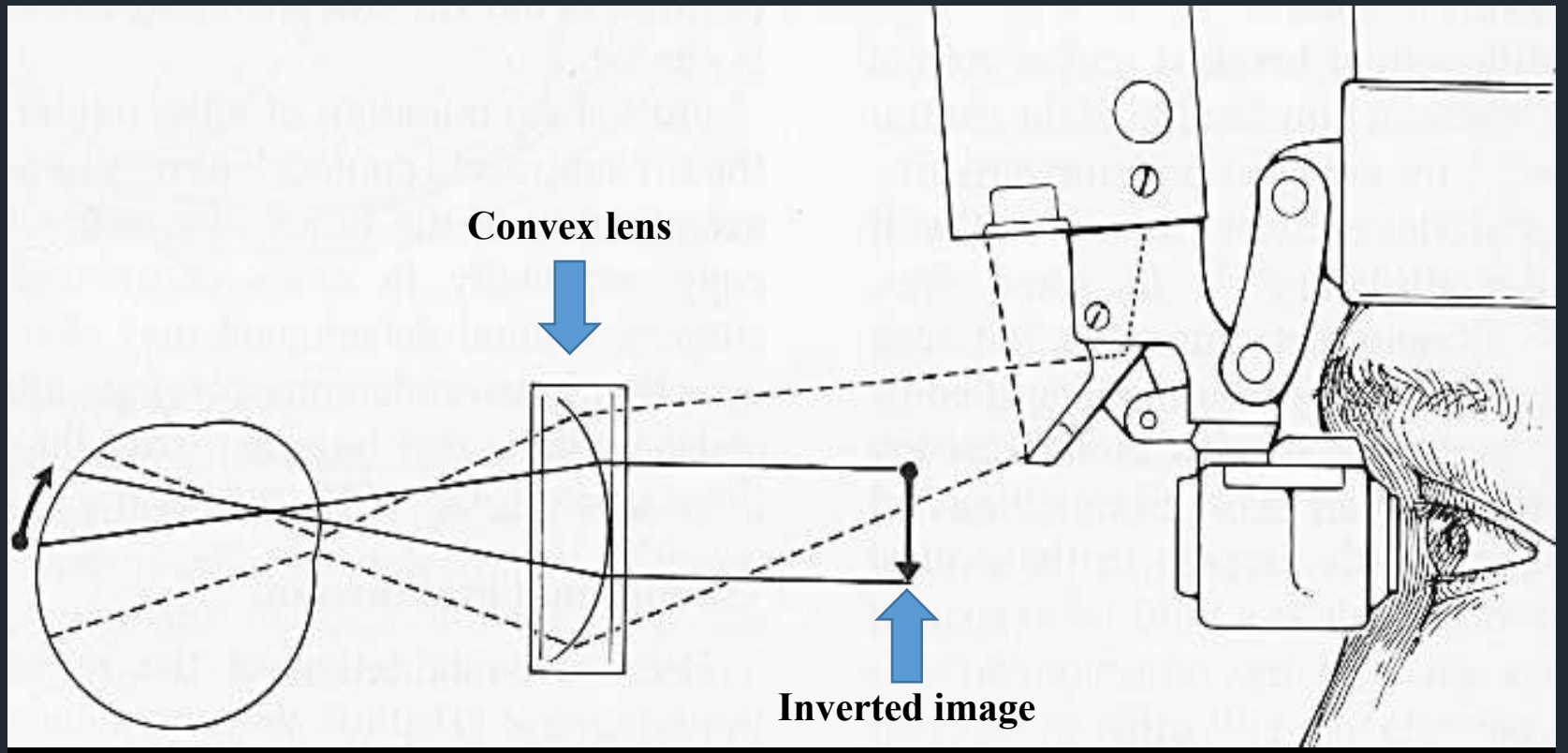


- Independent of patient's refractive power
- Retinal periphery exam
- Superior penetration compared to biomicroscopy
- in hazy media

INDIRECT OPHTHALMOSCOPY

Requirements for effective indirect ophthalmoscopy

1. Knowledge of the optical principle & the image system of IO



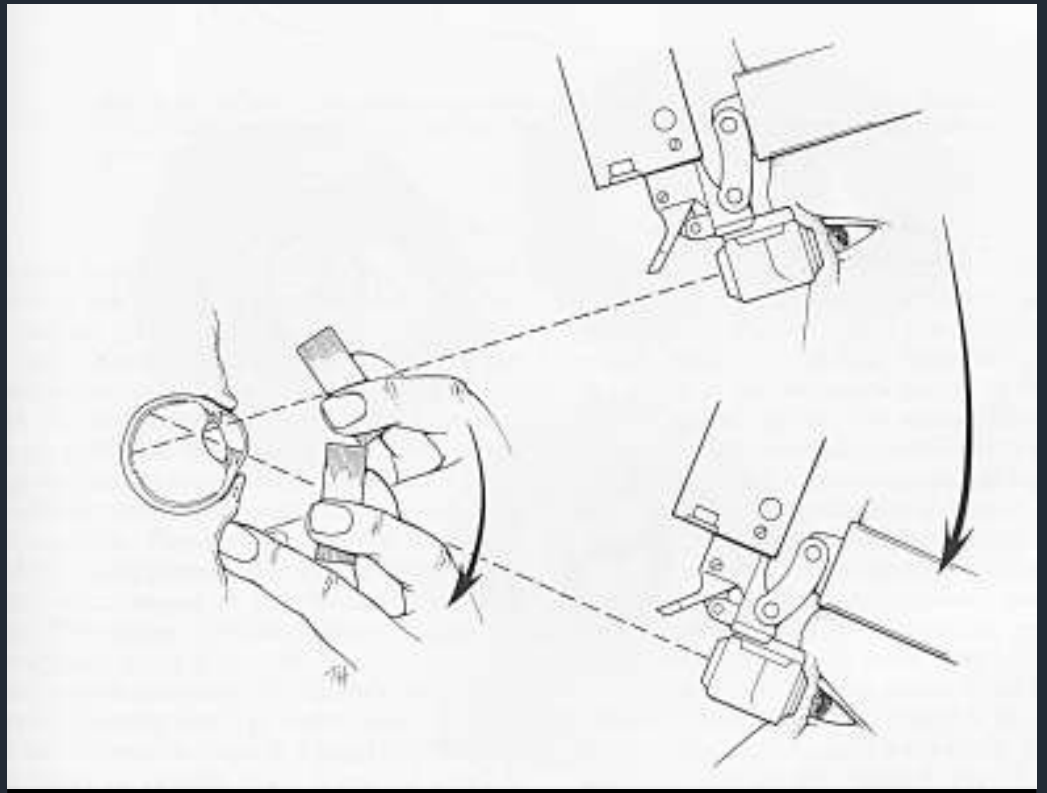
Michels Retinal Detachment 1997

INDIRECT OPHTHALMOSCOPY

Requirements for effective indirect ophthalmoscopy

2. Experience in examination technique

Maintain straight-line



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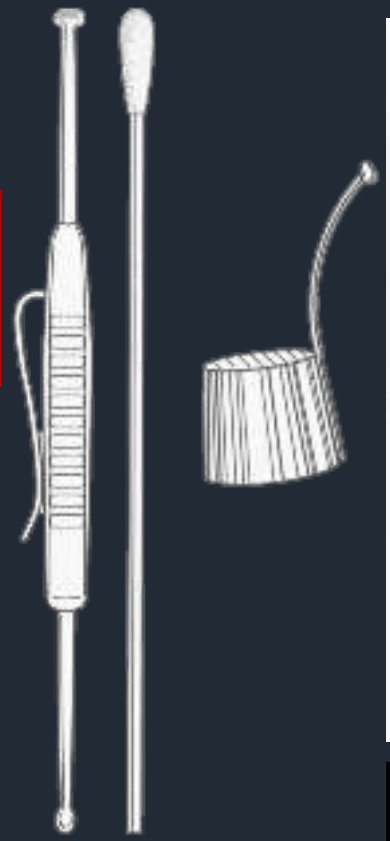
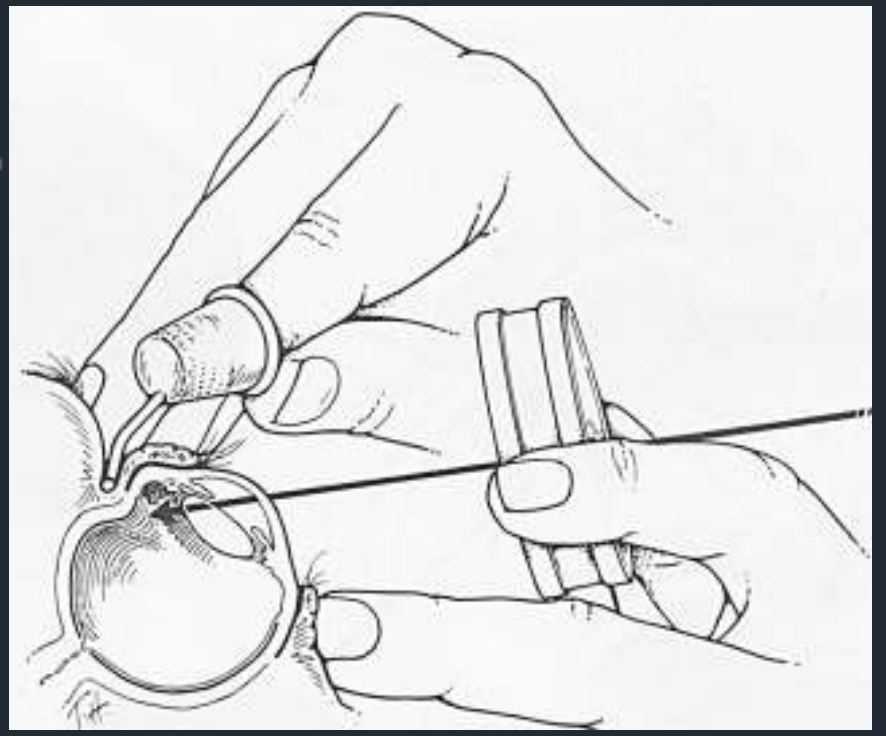
INDIRECT OPHTHALMOSCOPY

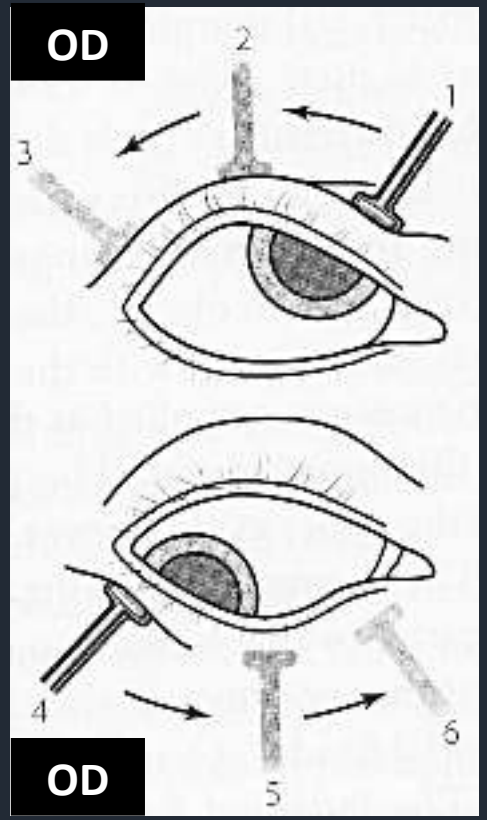
Requirements for effective indirect ophthalmoscopy

2. Experience in examination technique

Scleral indentation
Kinetic examination







Practical Ophthalmology, AAO 1996
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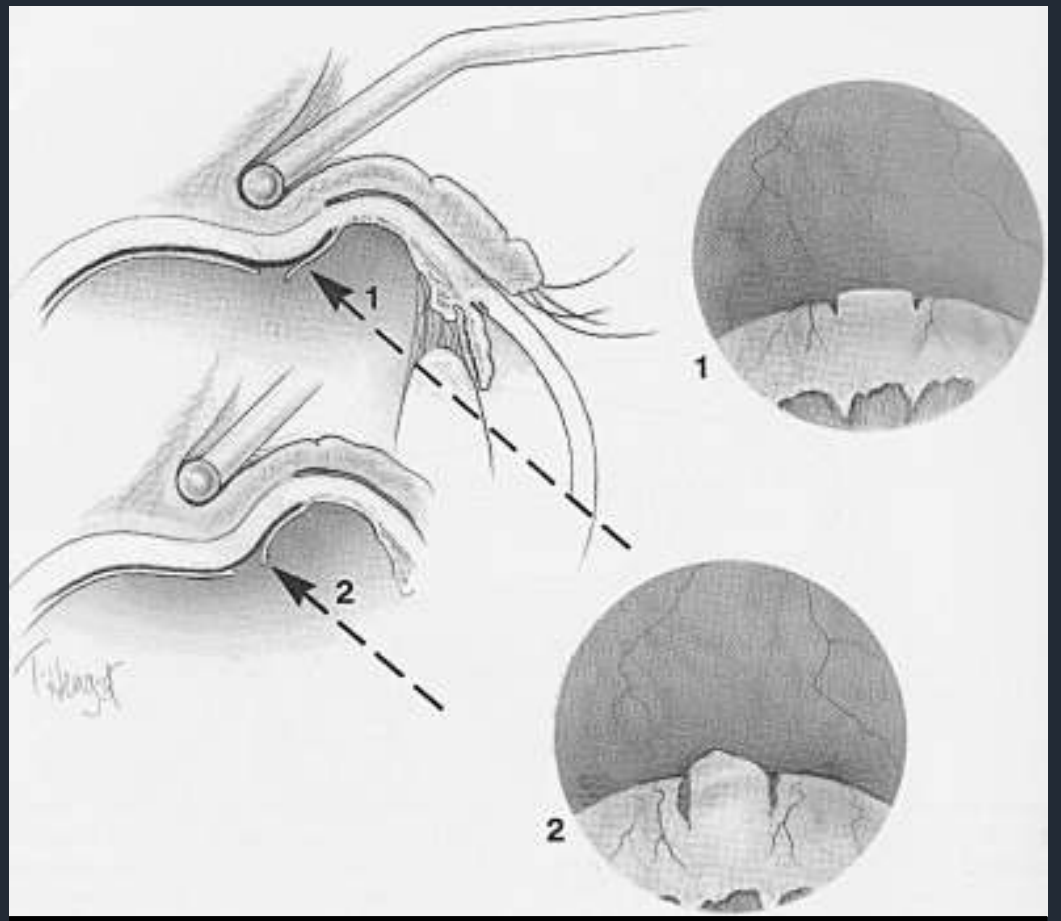
Requirements for effective indirect ophthalmoscopy

2. Experience in examination technique

Scleral indentation
Kinetic examination



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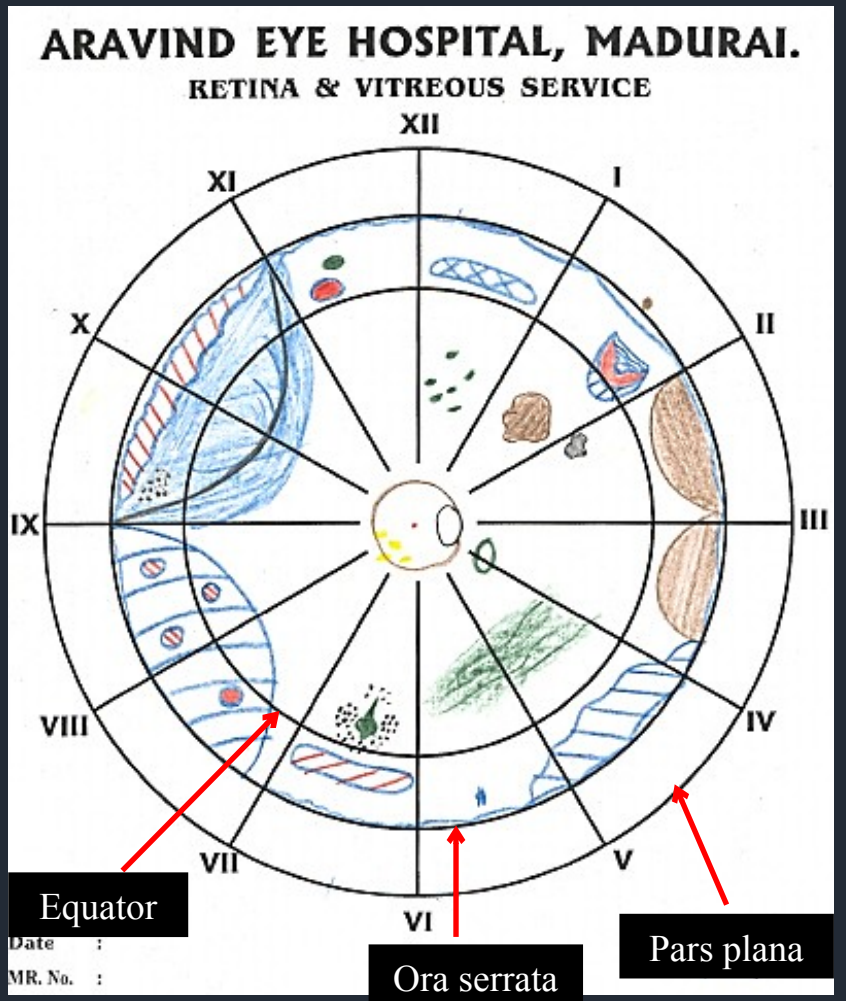
INDIRECT OPHTHALMOSCOPY

Requirements for effective indirect ophthalmoscopy

2. Experience in examination technique

Image interpretation & color coding

Color	Lesion
Red	Arteries/attached retina/hge/retinal break
Blue	Veins/detached retina
Yellow	Exudate/edema
Green	Vitreous opacity
Brown	Detached choroid
Black	Ora serrata/hyperpigmentation



INDIRECT OPHTHALMOSCOPY

Requirements for effective indirect ophthalmoscopy

2. Experience in examination technique

Transposing the IO view to fundus chart

- The 12 o'clock meridian points towards the patient's feet
- Examiner positioned opposite the examined meridian
- Image is drawn onto the point closest to the examiner

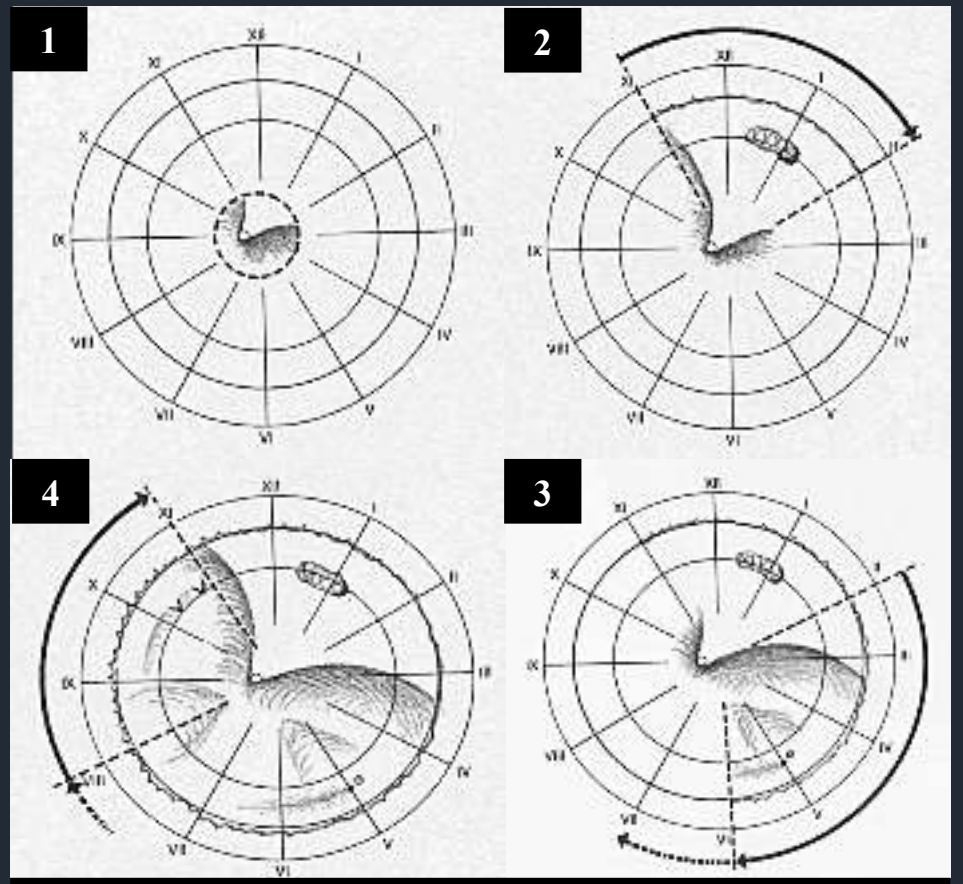
Practical Ophthalmology, AAO1996

INDIRECT OPHTHALMOSCOPY

Requirements for effective indirect ophthalmoscopy

3. Assessment of extent & topography of retinal detachment

- Start with ONH boundaries
- Peripheral boundaries of detachment
  Clockwise starting at 12 o'clock
- Status of the macula, peripheral retinal degenerations, grading of PVR, & of abnormal vitreoretinal traction



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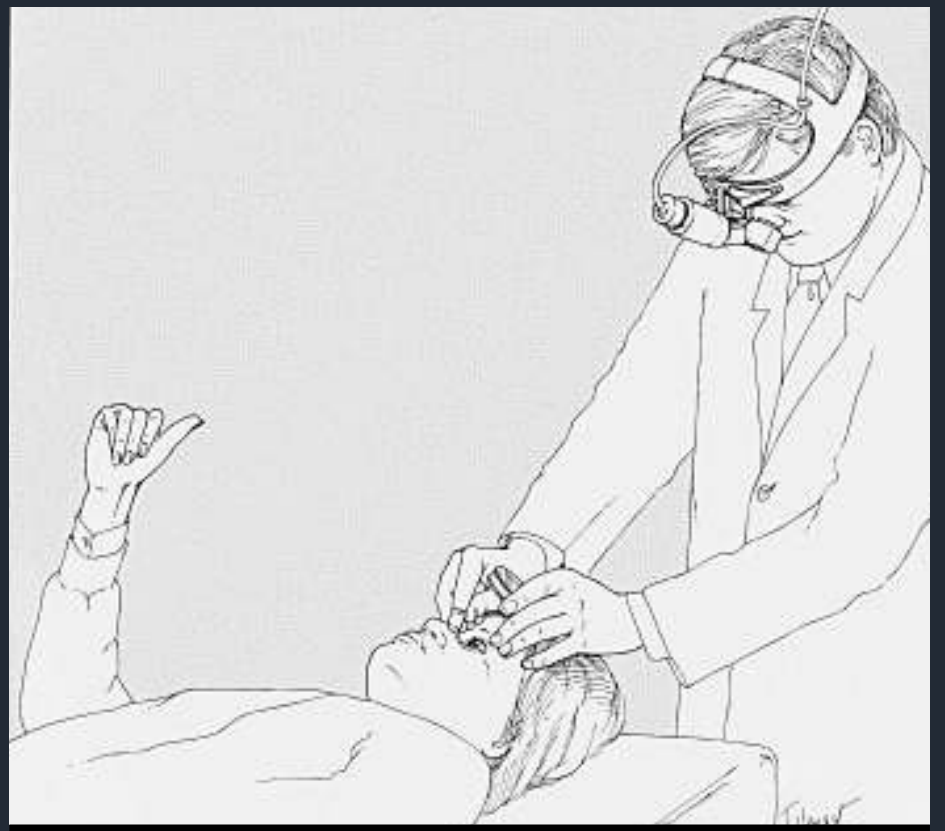
INDIRECT OPHTHALMOSCOPY

Requirements for effective indirect ophthalmoscopy

3. Assessment of extent & topography of retinal detachment

Patient's positioning

- Supine position



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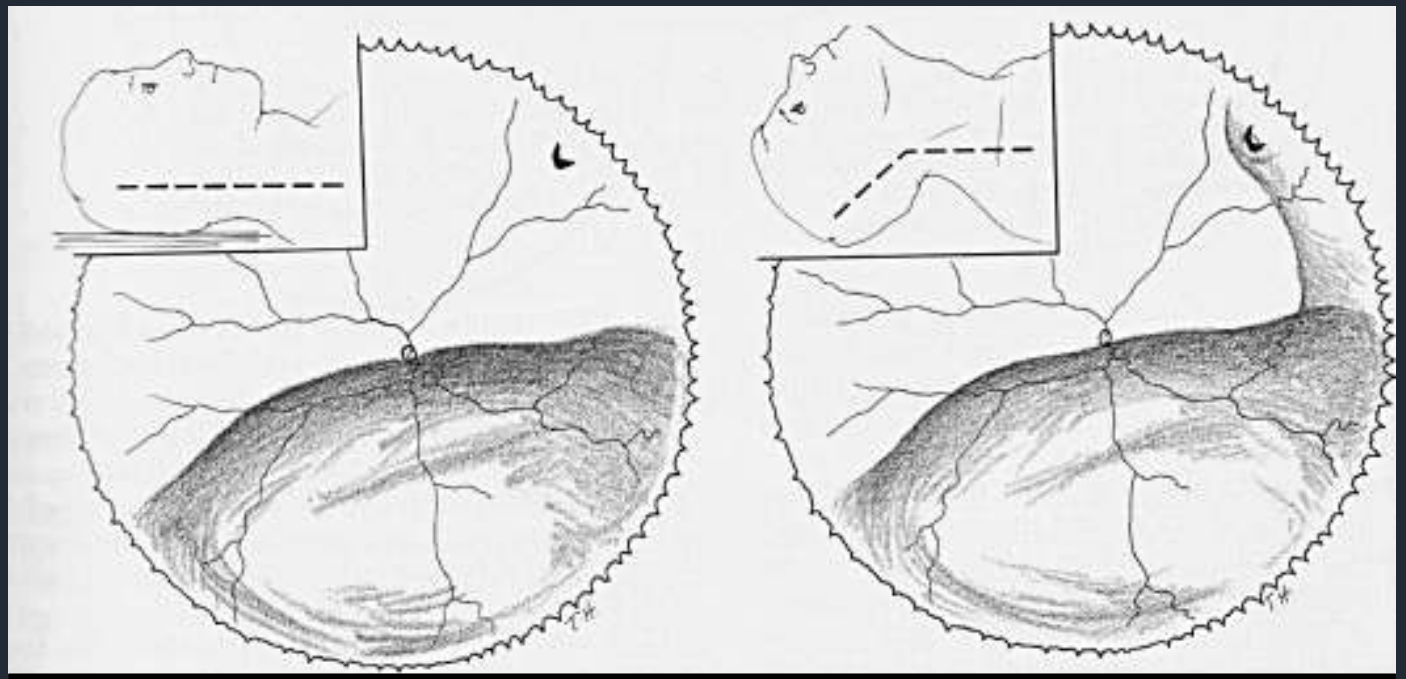
Requirements for effective indirect ophthalmoscopy

3. Assessment of extent & topography of retinal detachment

Patient's positioning

- Hyperextension of the neck



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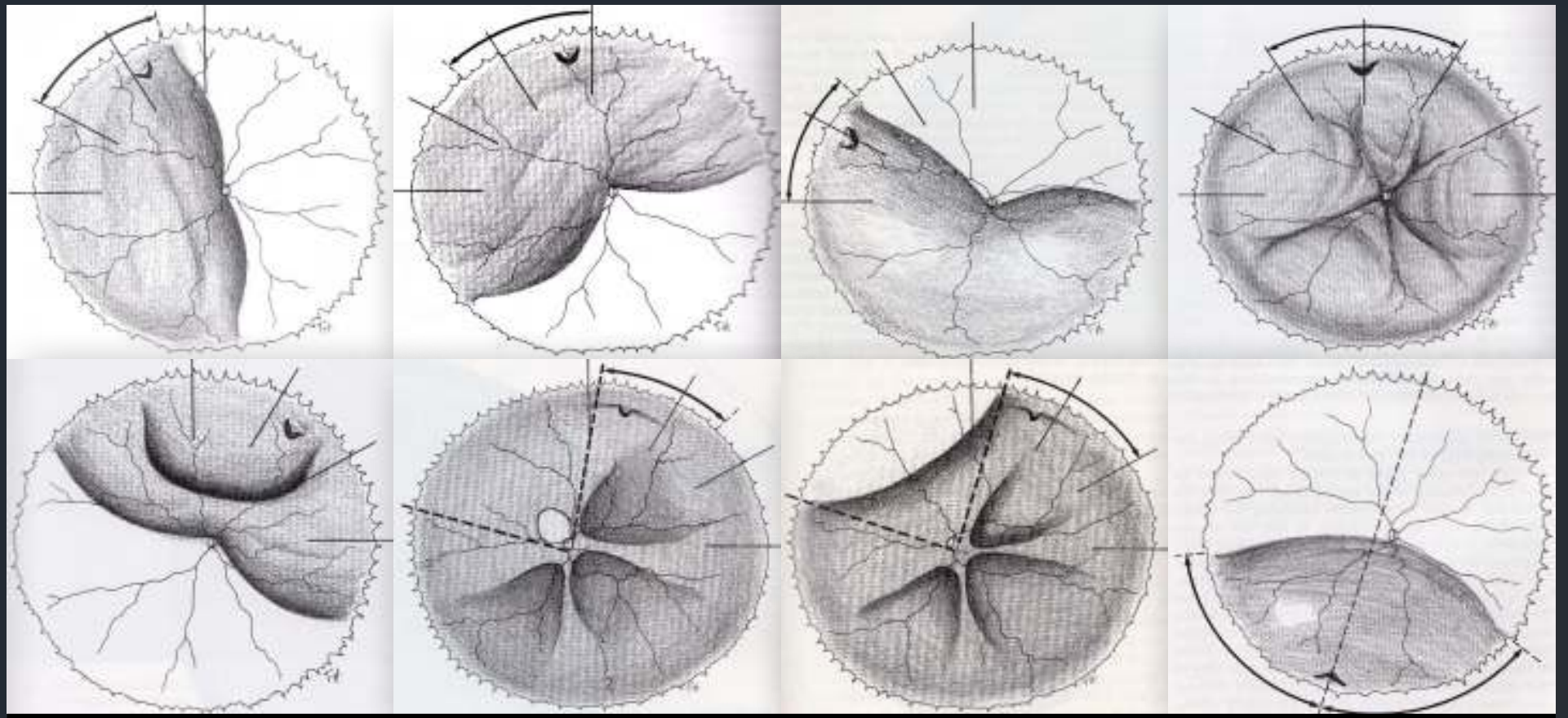
4. Identify retinal breaks

Lincoff's rules



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THANK YOU