



Closed angle glaucoma suspect (Occludable Angle)

Laila Hammouda, MSc, PhD
Professor of Ophthalmology

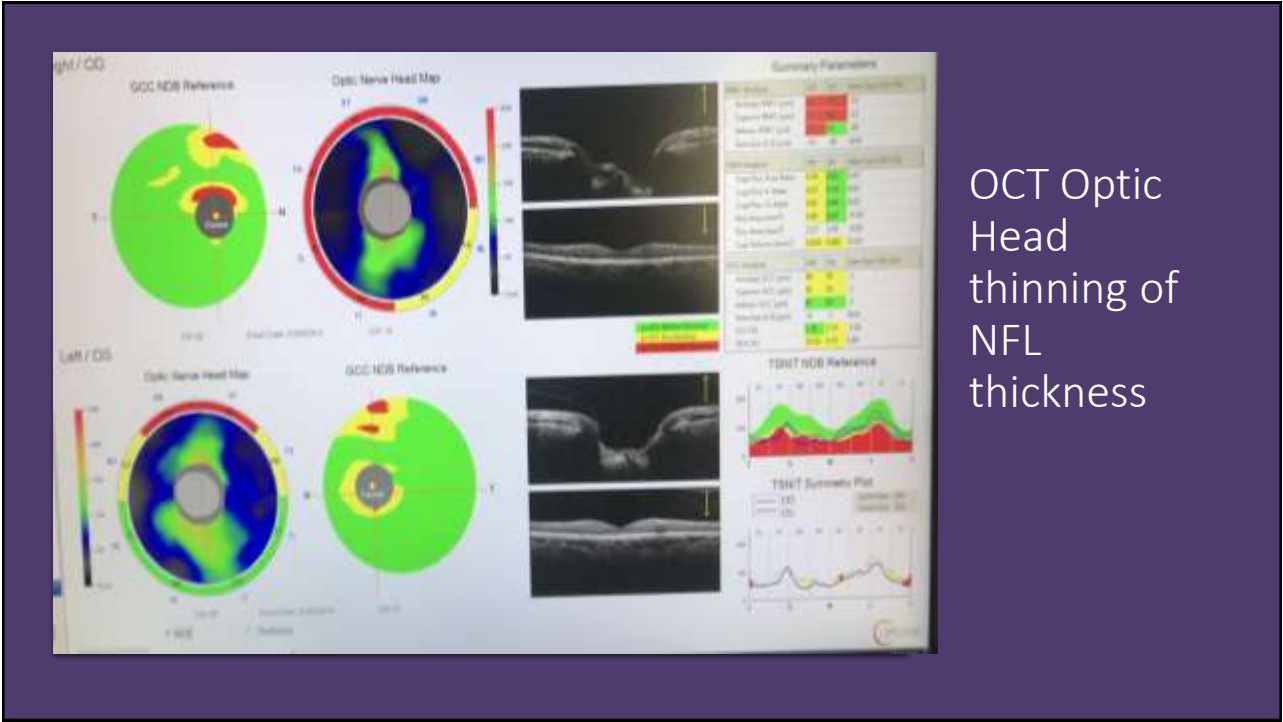


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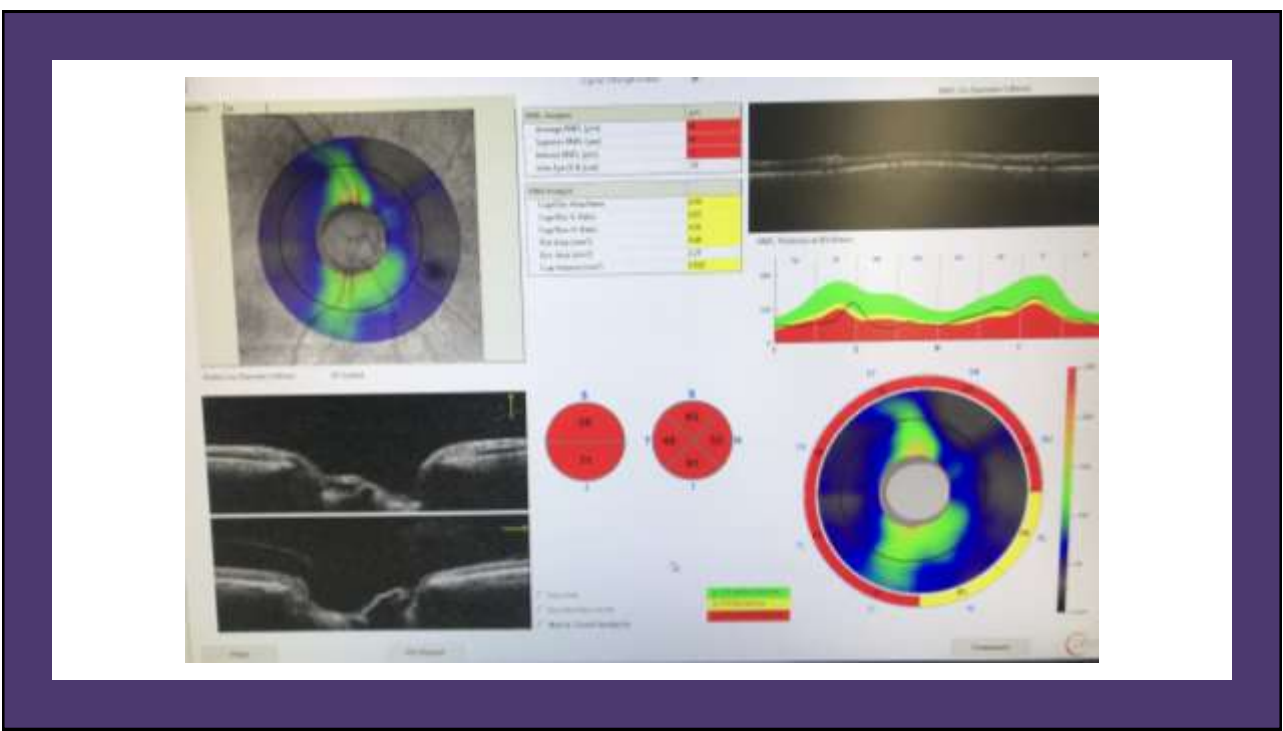
Occludable Angle

- The trigger for this study was a case
- 64 years old female came for follow up investigations as she was diagnosed more than 10 years ago for POA glaucoma (refraction for far was -3.0 and -2.5) myope
- The patient was controlled under medical treatment (one eye drops and IOP usually on the low side (14-15 mmhg)

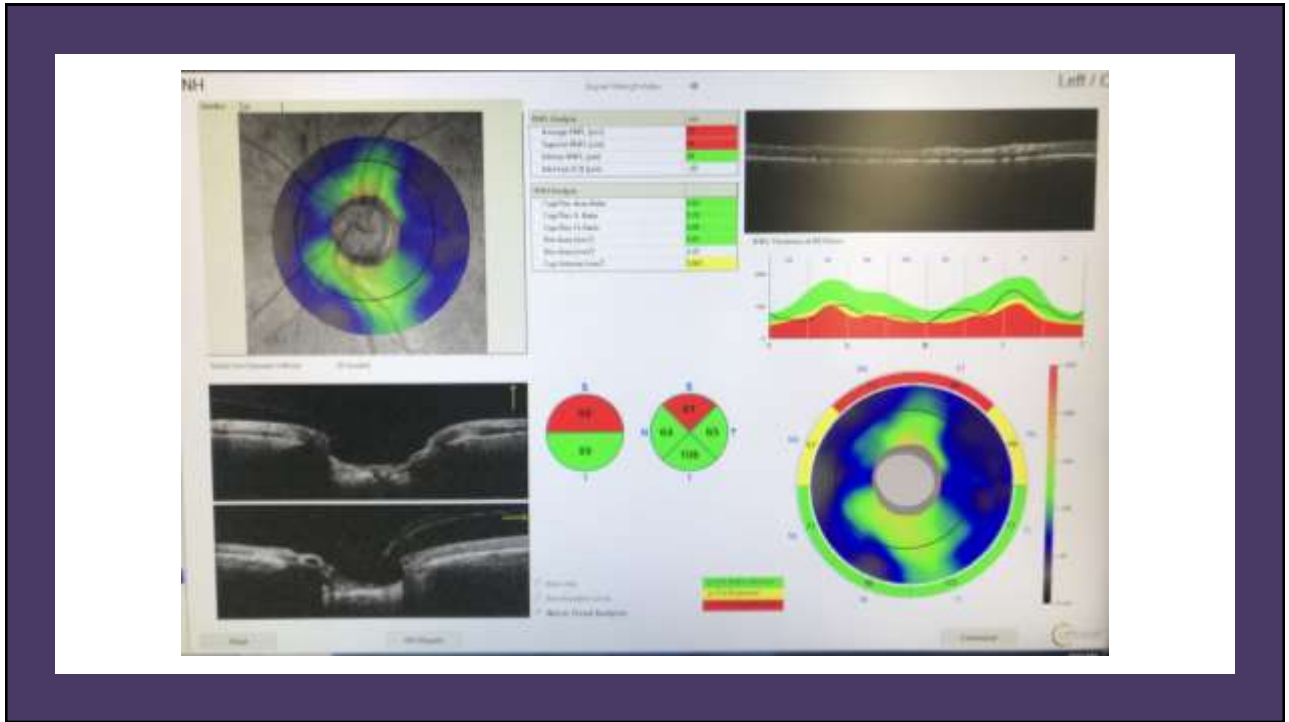
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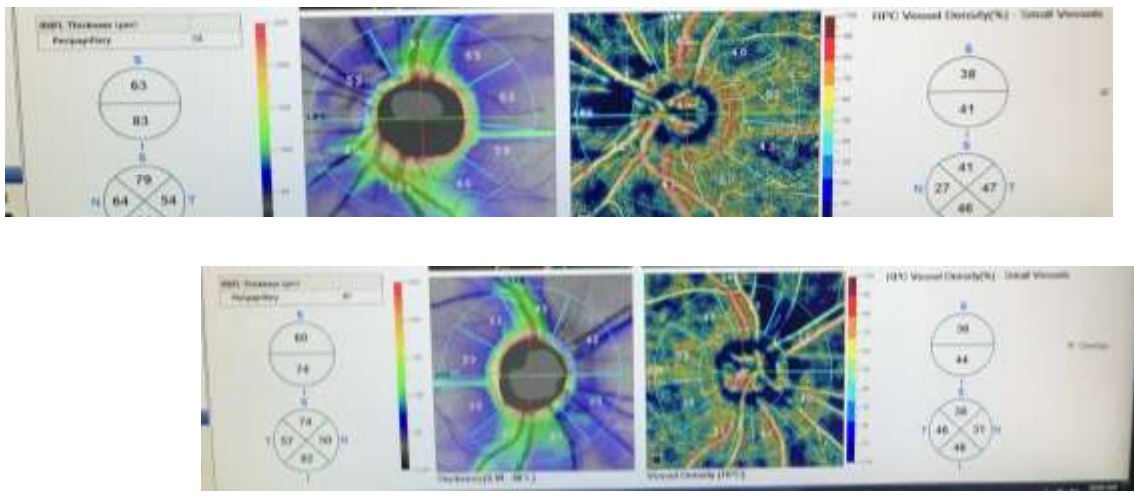


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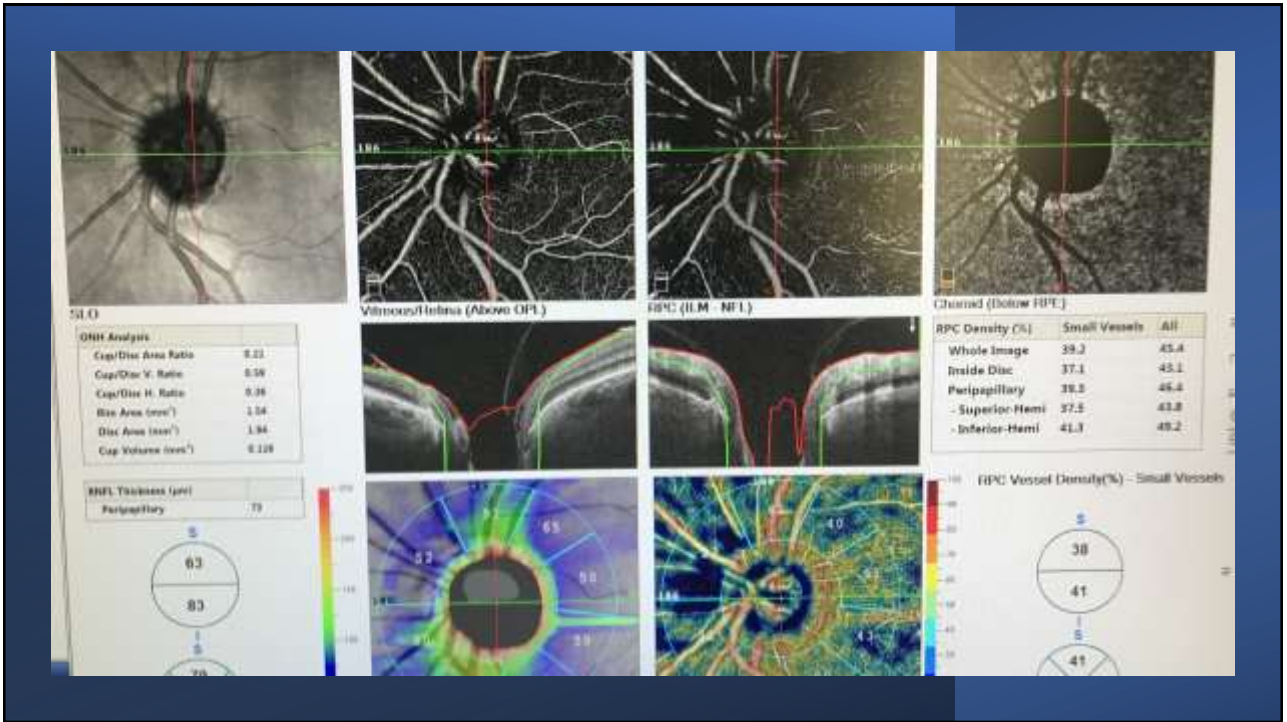


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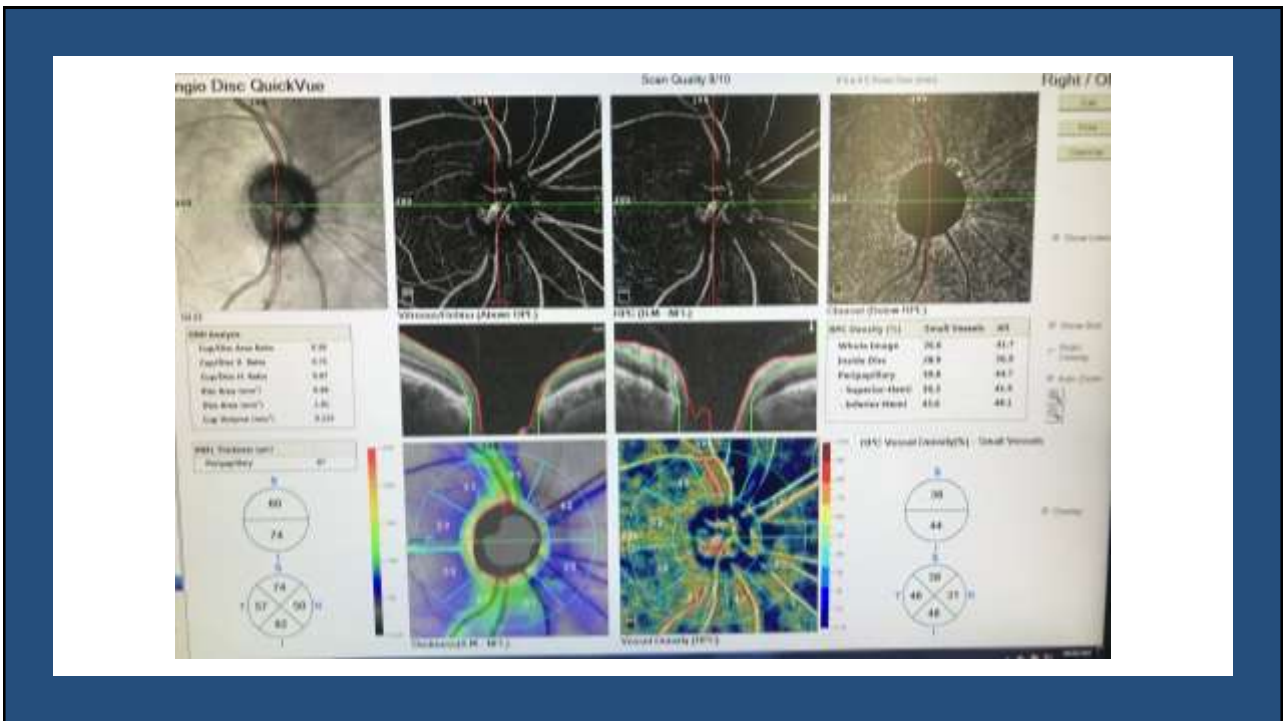
OCT Angiography



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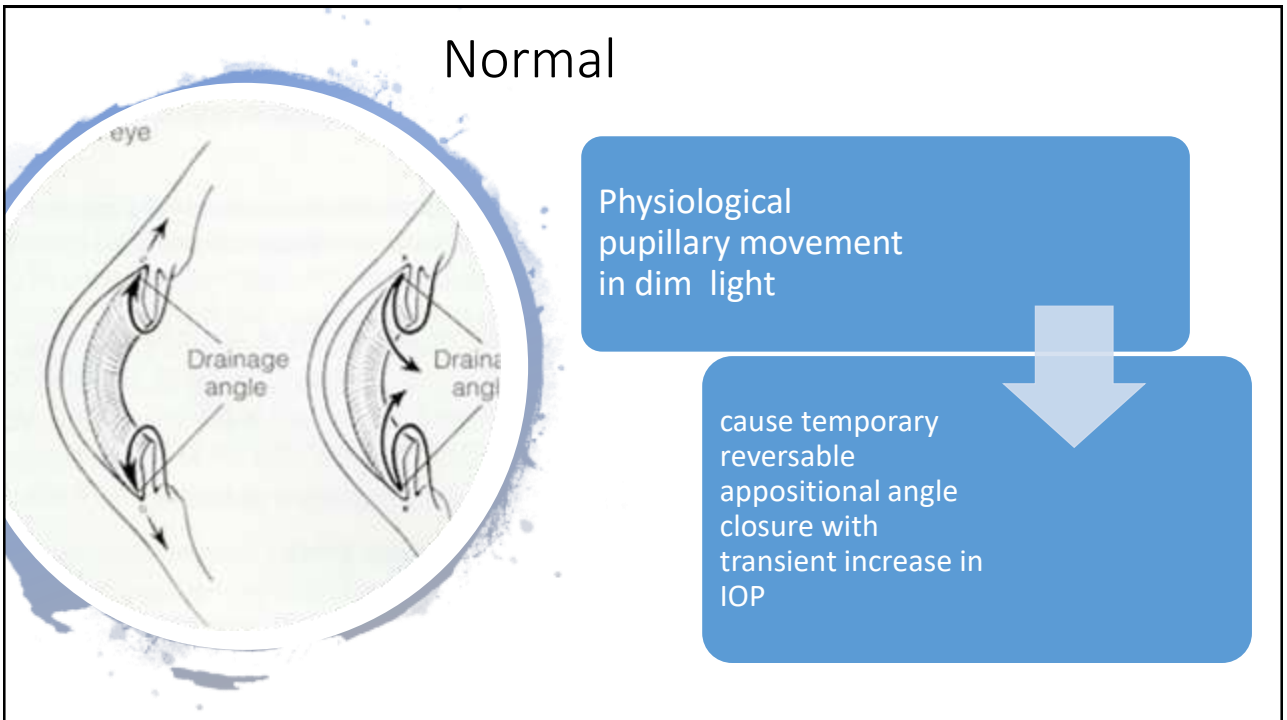
On assessing the central corneal thickness for corrected IOP

shallow anterior chamber and narrowing of the angle increase with a drop of mydriatic

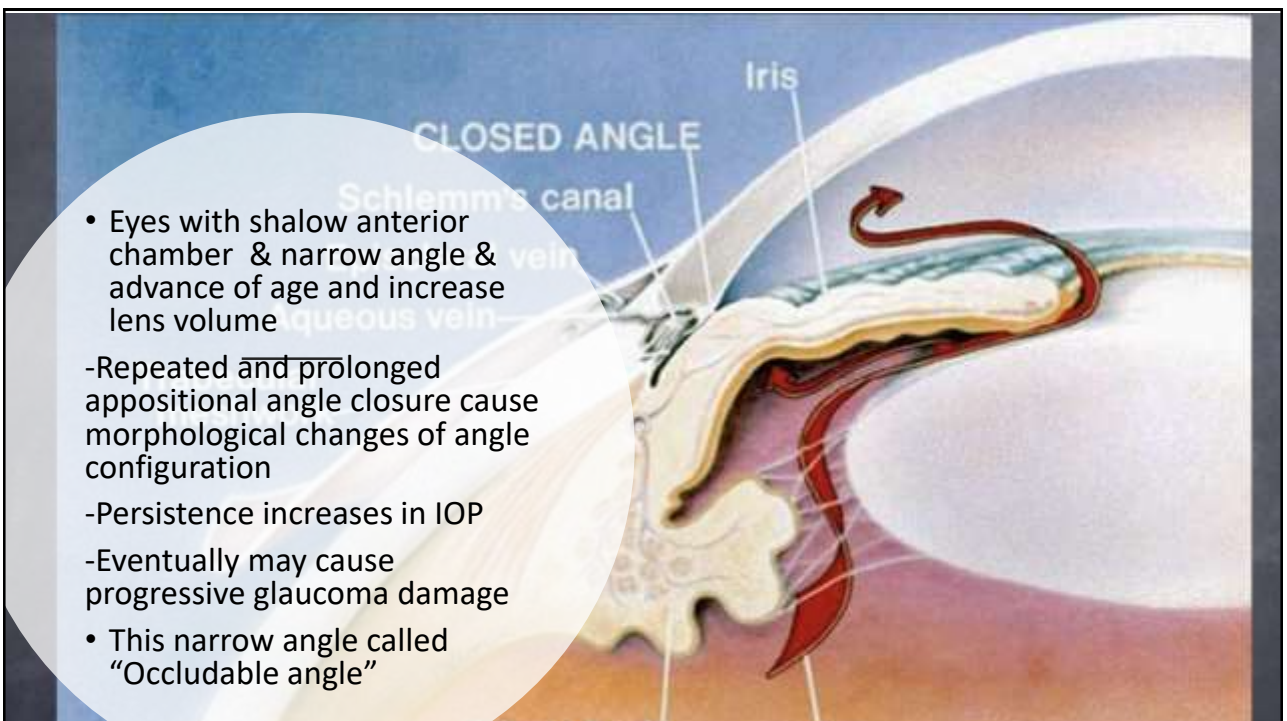
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The image displays two side-by-side screenshots of corneal topography maps. Each map shows a circular representation of the cornea with a color-coded thickness distribution. The left map shows a relatively normal distribution with a central green/yellow area and a blue periphery. The right map shows a significant increase in central thickness, indicated by a large red/yellow area, and a corresponding narrowing of the peripheral blue area, suggesting a change in corneal curvature and thickness. Below each map is a corresponding cross-sectional diagram of the cornea, showing the anterior and posterior surfaces and the central thickness.

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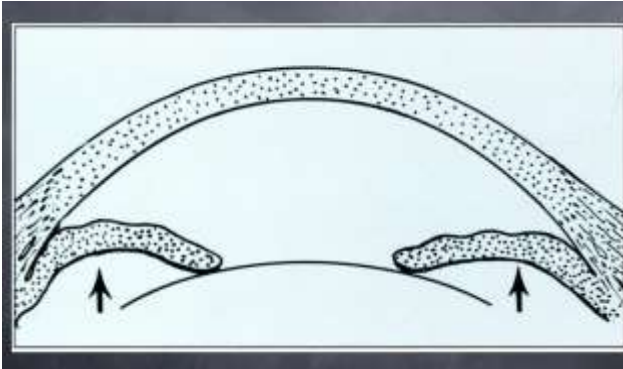


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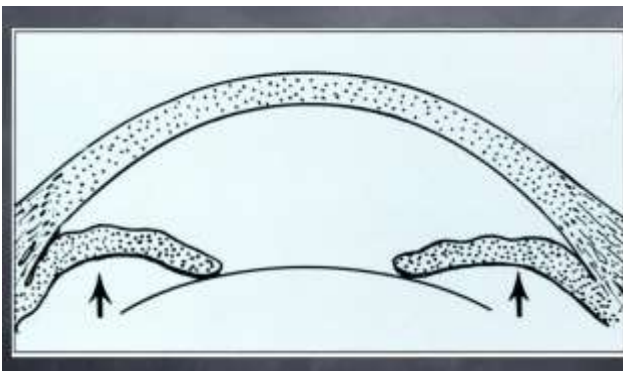
Back To Our Case



- **iS** the original diagnosis “subacute chronic closed angle glaucoma” from the start (Occludable angle)
- **IS** the increase of lens volume with age decrease the angle area and intern increase IOP and progression of glaucoma damage

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Back To Our Case



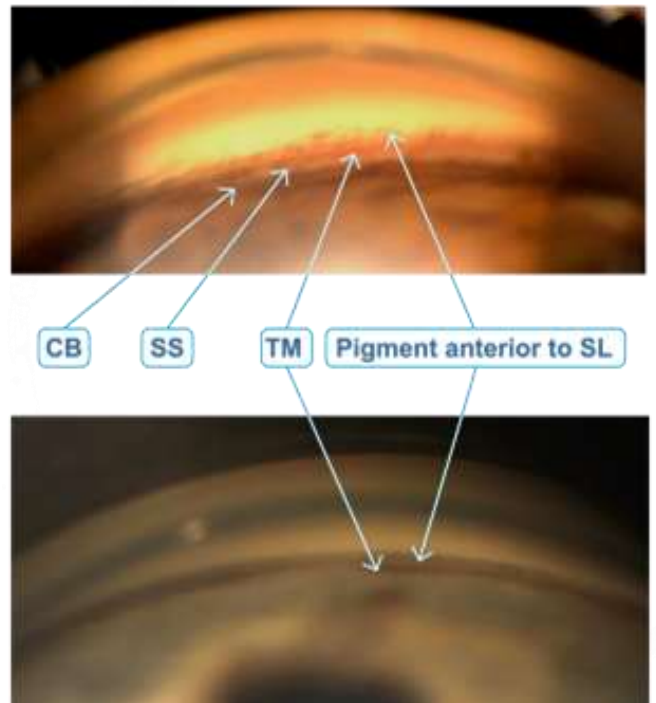
- How we can use the new modes of imaging (anterior segment OCT & (Scheimpflug image) & UBM) to diagnose the occludable angle

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Gonioscopy

Gaze in the primary position.

Occludable angle was defined as the posterior trabecular meshwork only visible for less than 90° of the **angle** circumference,



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Aim of the study

- Aiming at detection of anterior chamber angle changes (occludable angle) in Primary angle closure glaucoma (PACG) suspects using both anterior segment OCT and Pentacam (Scheimpflug) following mydriatic test

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Patient
Population
80 eyes

	N=40
Age Mean \pm SD (years)	46 \pm 10.2
Female Sex	28 (70%)
Family history of ACG	9 (22.5%)
Normal Visual field	40 (100%)

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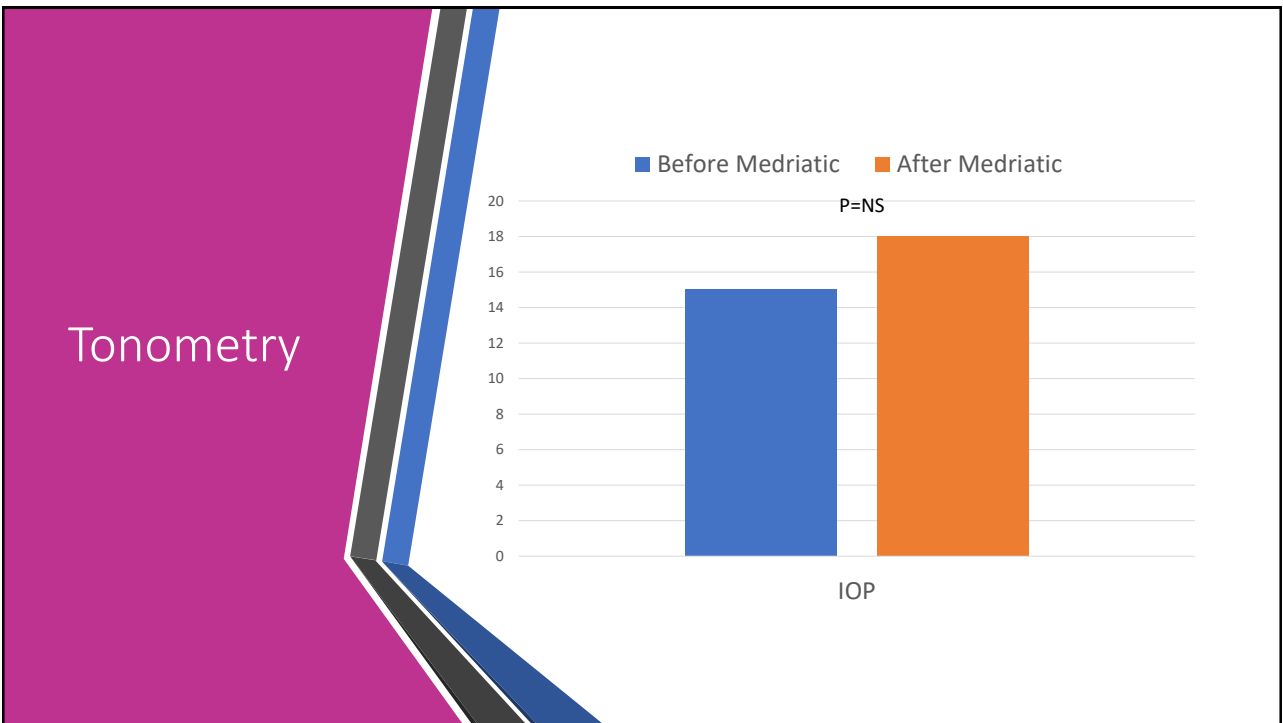


Mydriatic test
imaging the anterior chamber and AC angle before and
after

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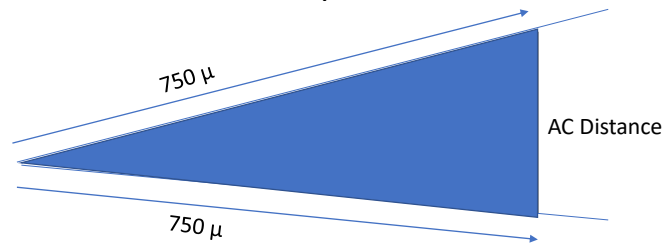
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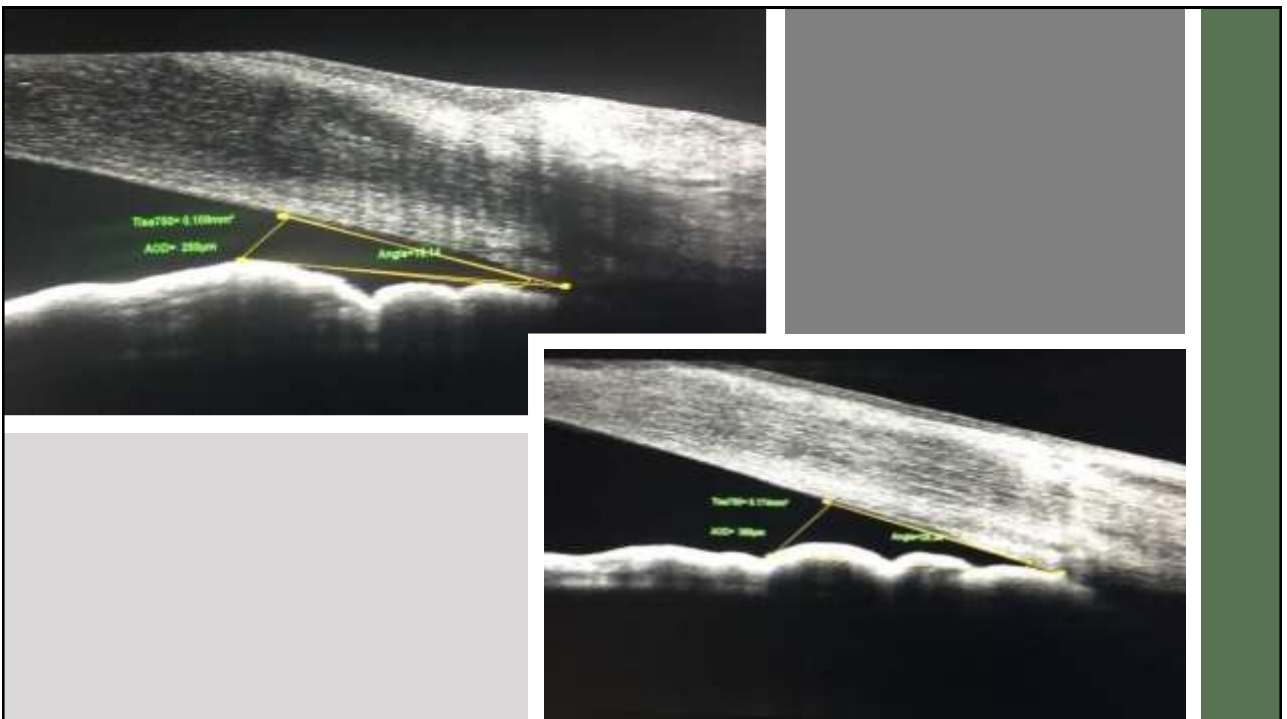
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Anterior segment OCT image

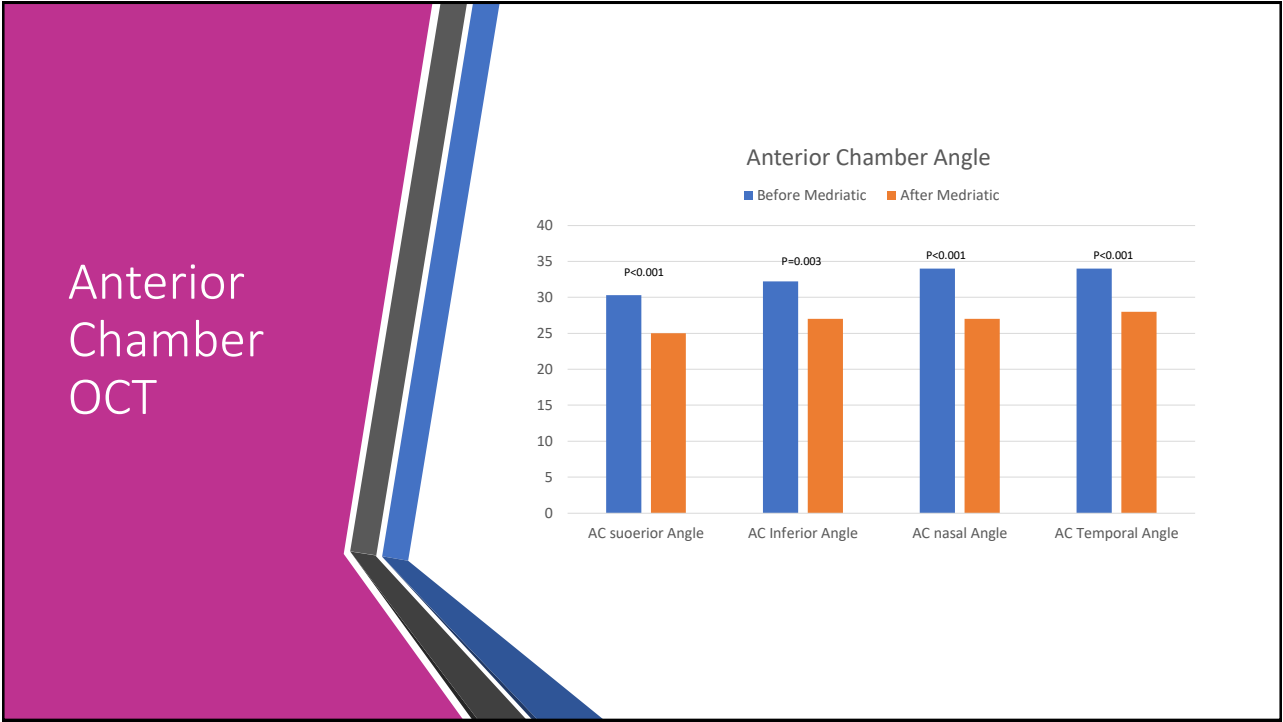
- Access the angle opening in degree ASO the angle area and the angle distance .in 4 quadrants superior, inferior, nasal and temporal



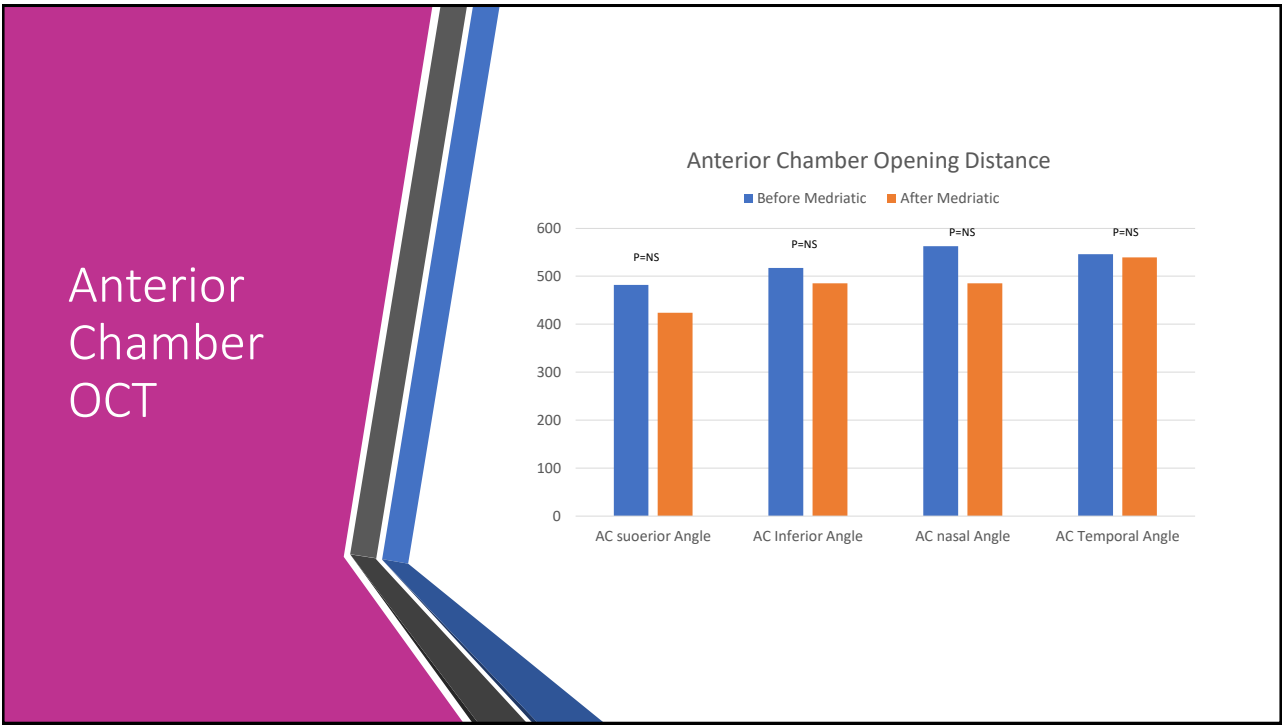
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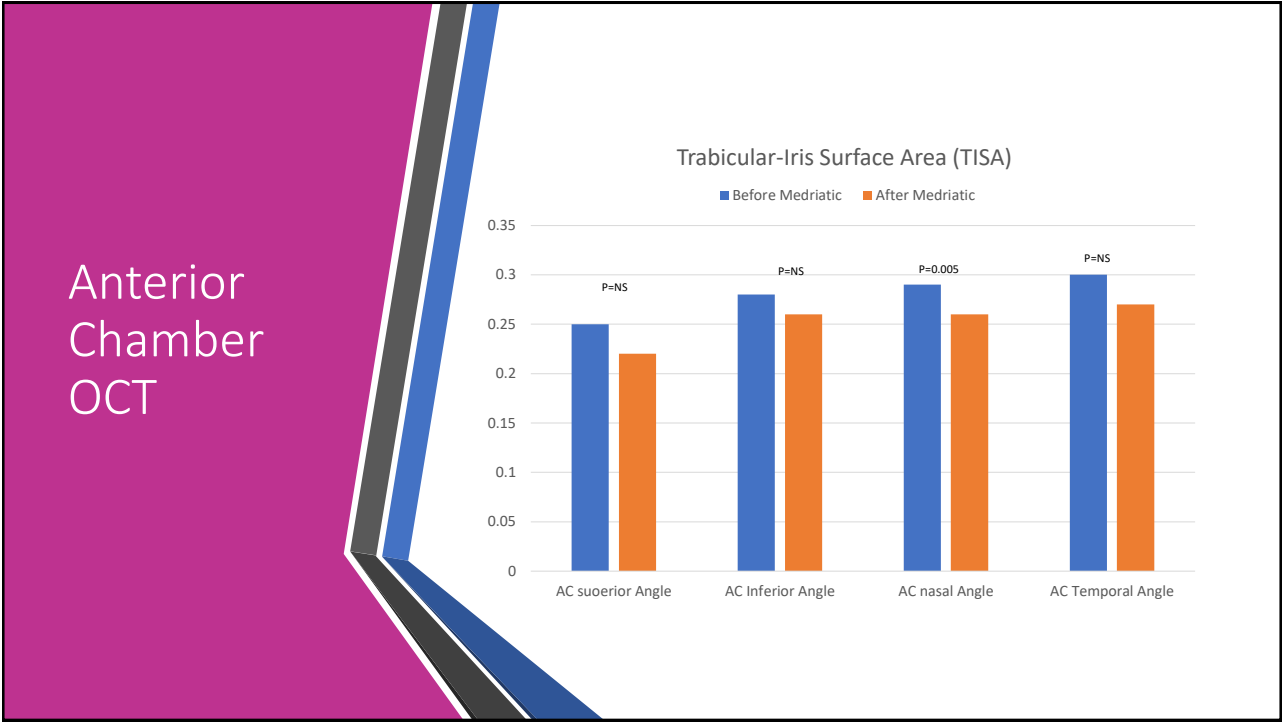
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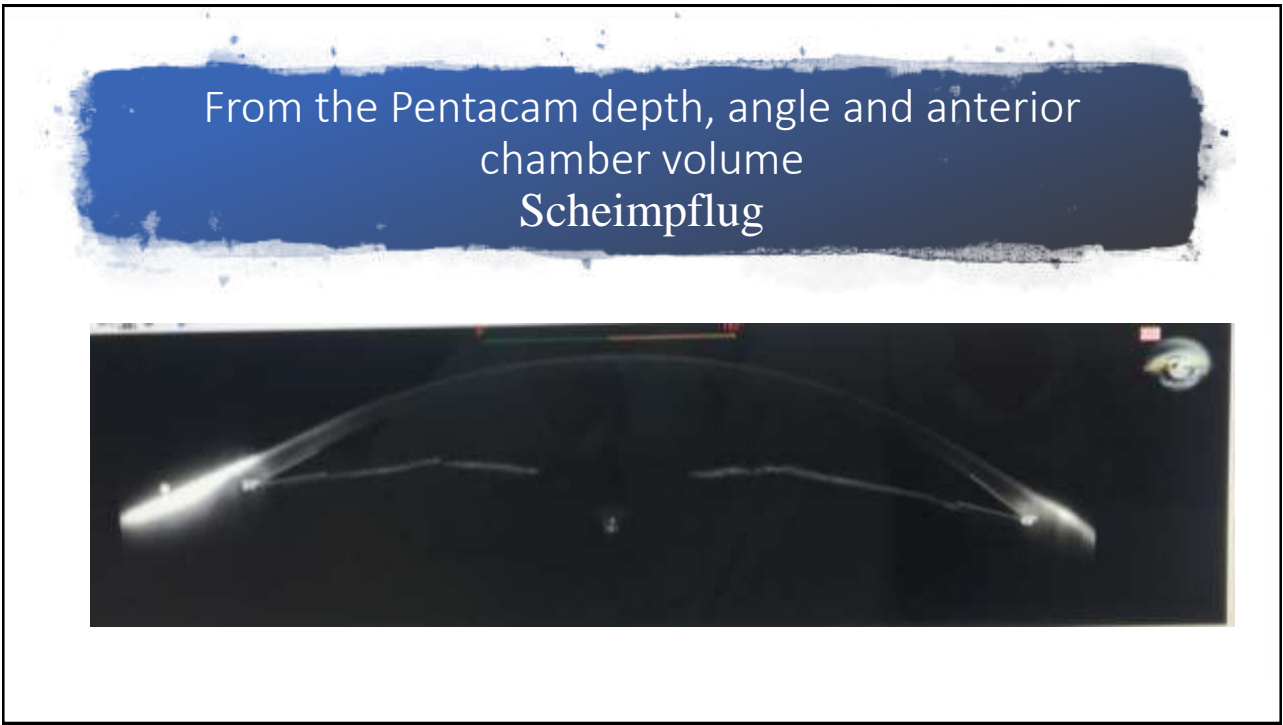
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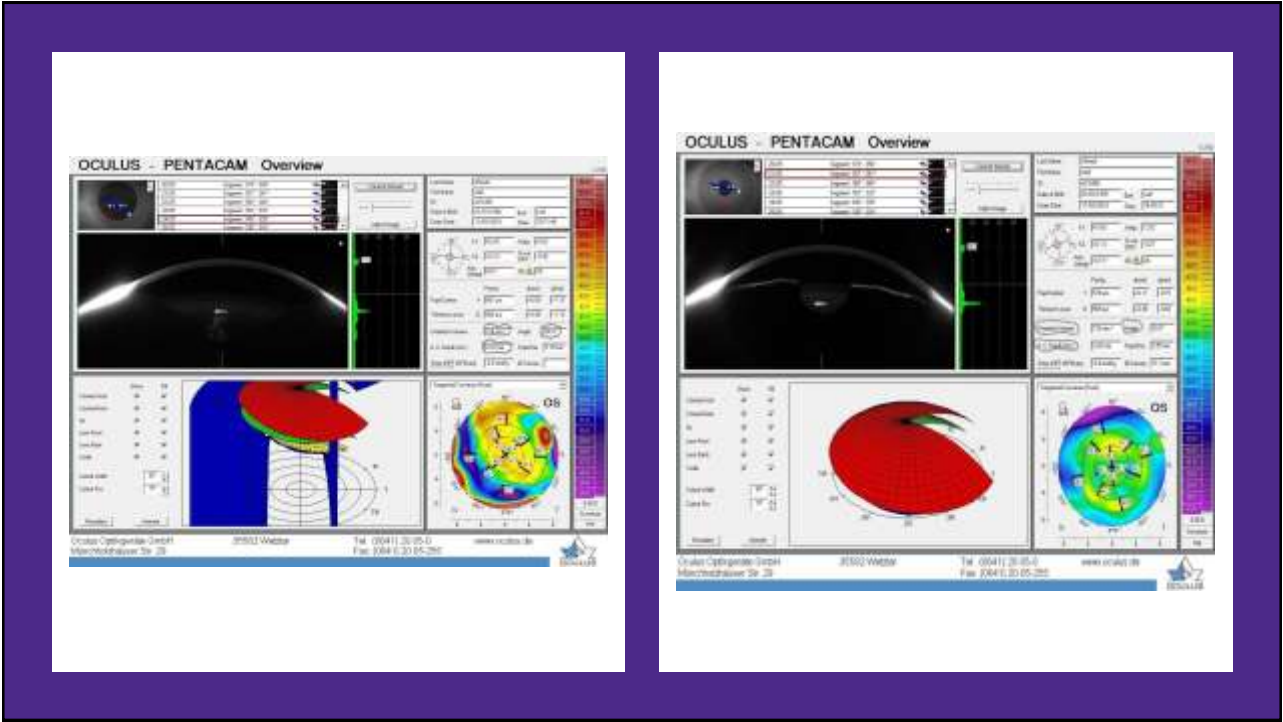
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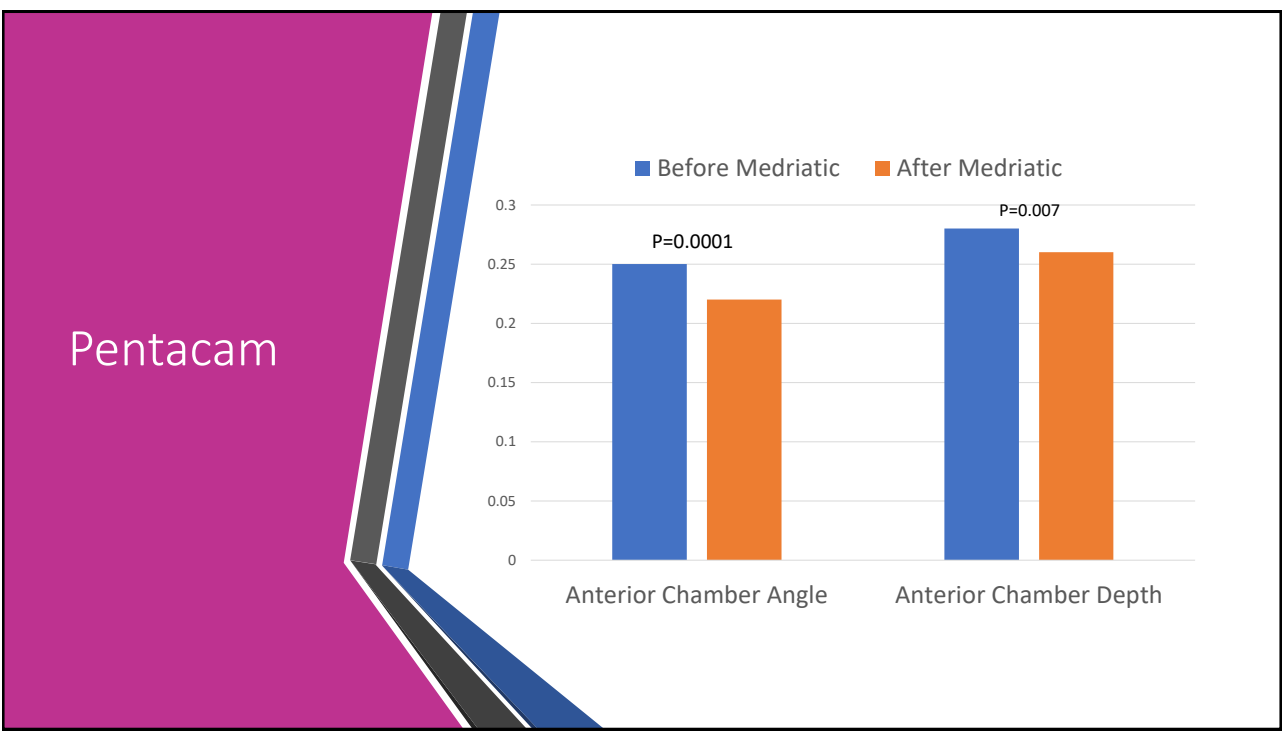
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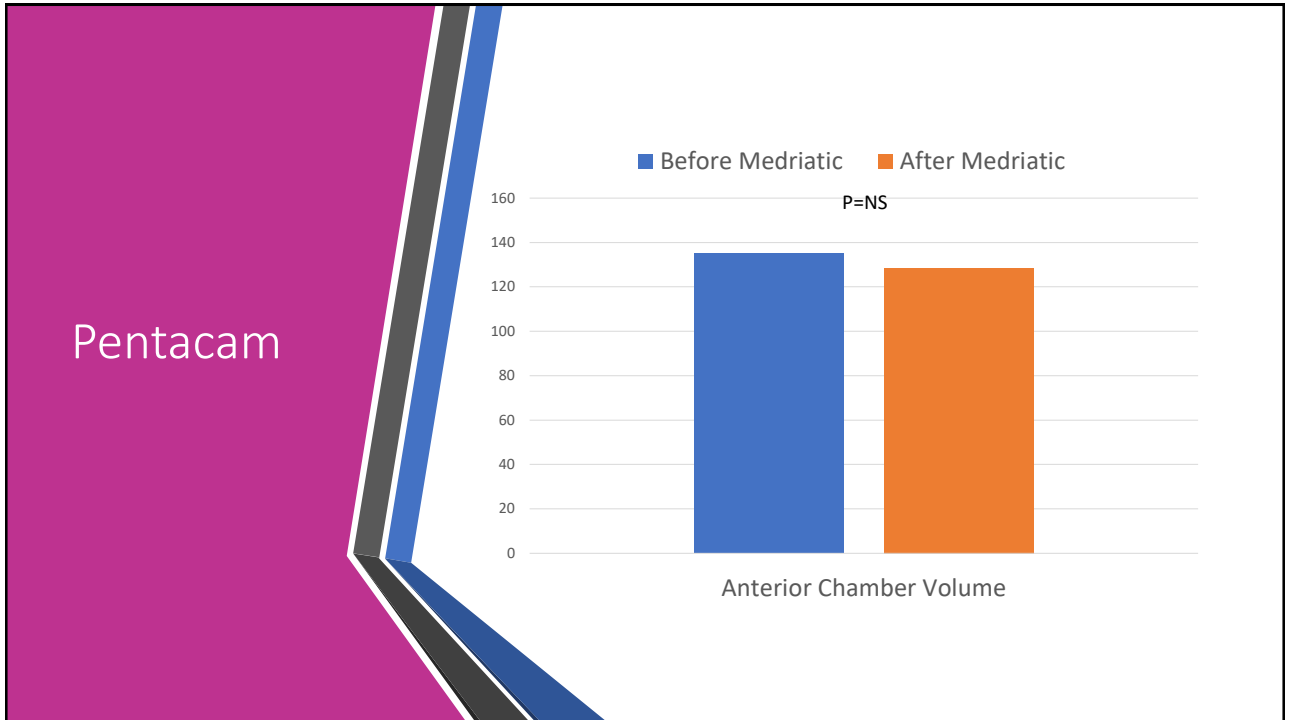
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Help in diagnosis of Ocludable Angle

- AS-OCT is a reliable system for visualization of the angle morphology with high-resolution and has good repeatability and reproducibility
- Pentacam-Scheimpflug camera offers a quantitative approach to the anterior chamber
- The use of provocative test like Mydriatic test cause evident quantitative changes in anterior chamber morphology

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the angle should be considered occludable and management is strongly considered

- If patients have narrow angle with positive mydriatic test
- -Documented appositional or near appositional closure,
- -Anterior chamber depth of less than 2.0 mm

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This was one of the patients with bilateral occludable angle had been operated in right eye

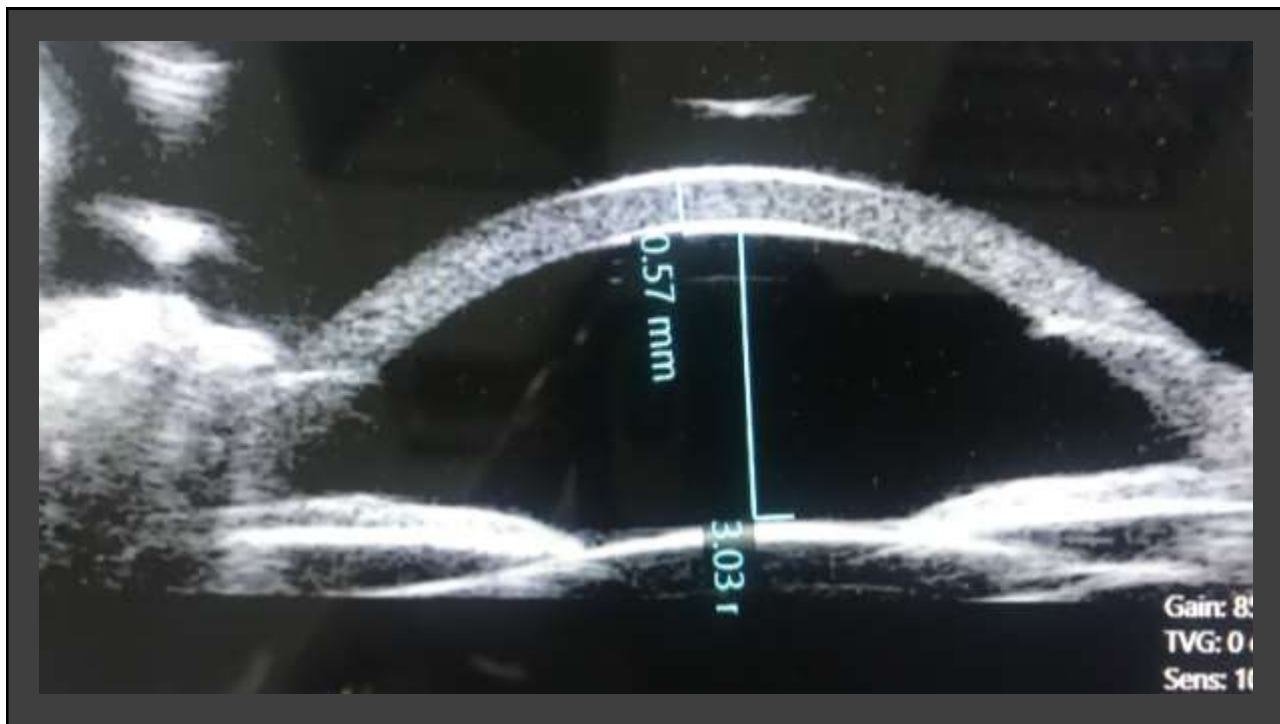
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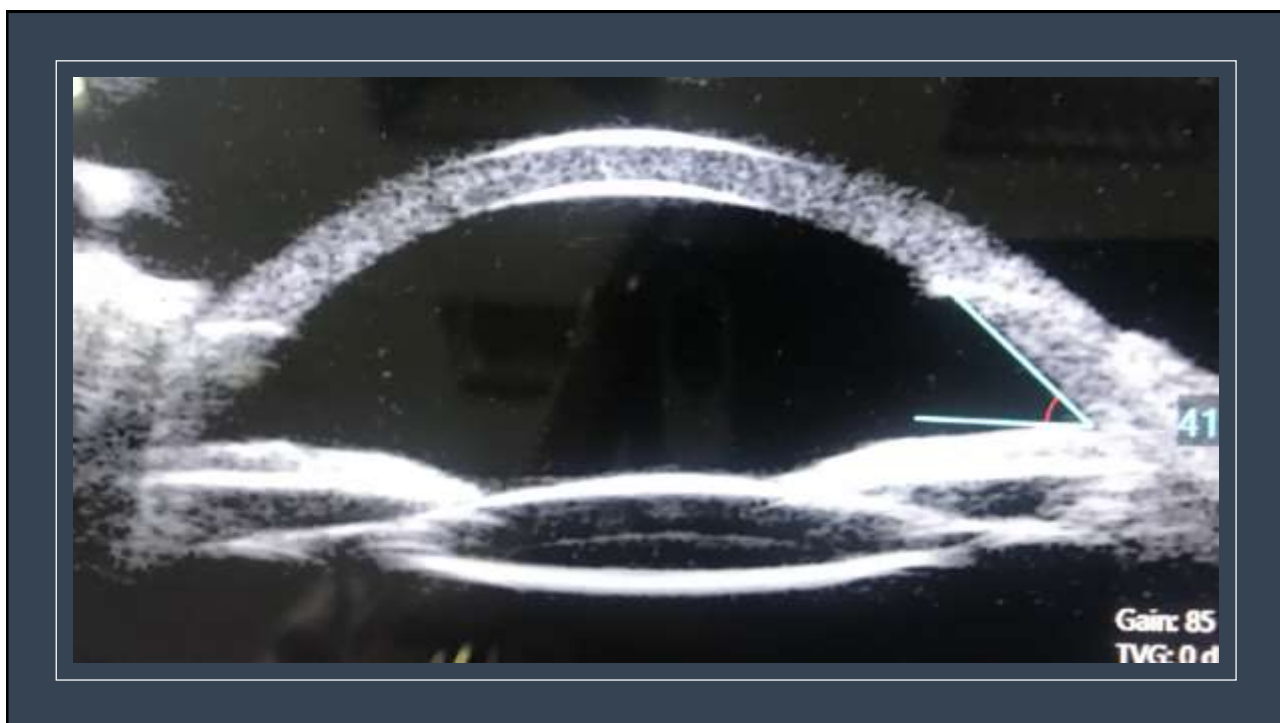
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UBM	AS-OCT
Visualizes the angle and structures posterior to the iris pigment epithelium including the ciliary body, zonules, and lens	Visualizes anterior chamber structures anterior to the iris pigment epithelium
Patient is in a supine position	Patient is in an upright position
Contact with coupling medium	Non-contact
Acoustic waves visualize through corneal opacities	Optical images through clear cornea
Slower acquisition time	Rapid acquisition time
Allows quantitative measurements of the angle, posterior iris, and ciliary body structures	Allows quantitative measurements of various angle structures

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Thank You

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