



Presidente del Congresso:
Prof. Giovanni Scorcìa

Organizzatori:
Dr. Pasquale Cozzupoli
Dr. Giovanni Spinelli

**XVII CONGRESSO
SOC**

"NEWS IN OFTALMOLOGIA"

**27-28 OTTOBRE 2017
REGGIO CALABRIA
GRAND HOTEL EXCELSIOR**

OCT del segmento anteriore

Dr. Alain SERRU - NUORO

Caratteristiche generali

- Dominio delle frequenze (Fourier domain – Swept source)
- Risoluzione assiale 5 μm
- Risoluzione laterale 20 μm
- Acquisizione a pseudo colori e ricostruzione 3D
- Analisi strato per strato (analisi 3D) su 3 piani
- Retinografo non midriatico a colori per il reperi della scansione analizzata
- Fotografia del segmento anteriore e ricostruzione 3D del segmento anteriore

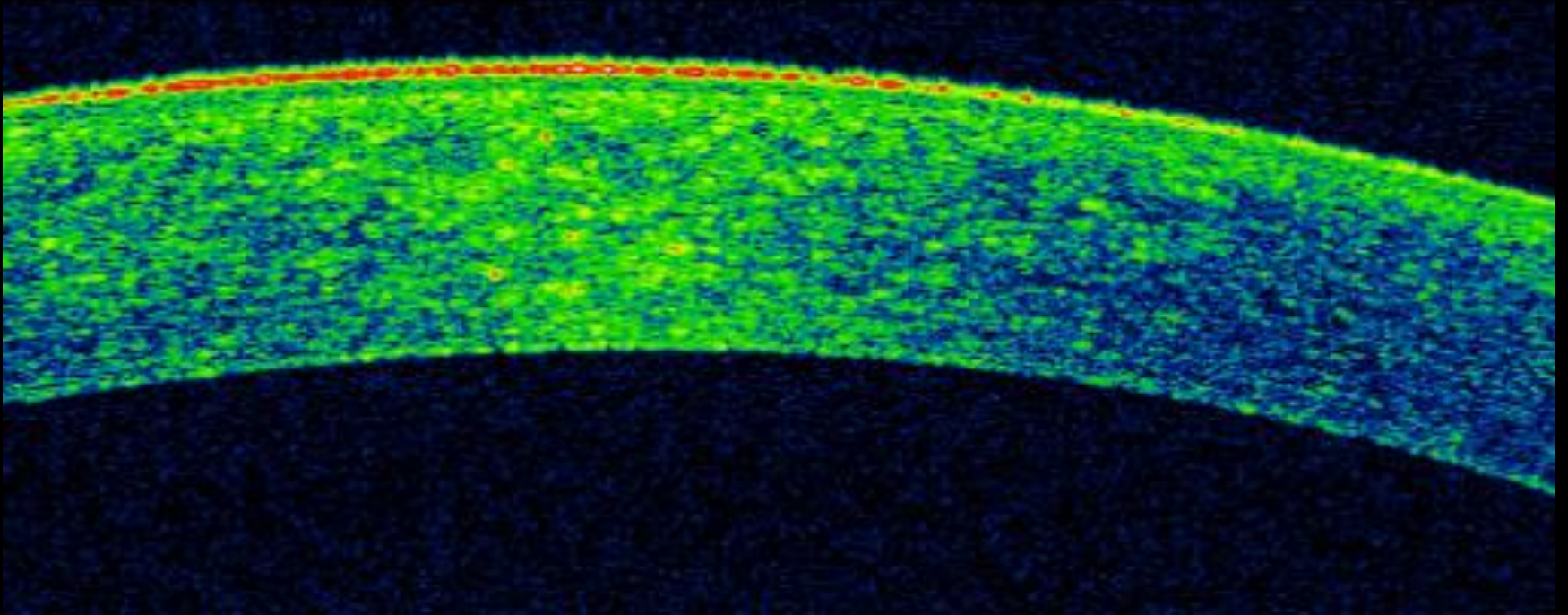
Caratteristiche generali

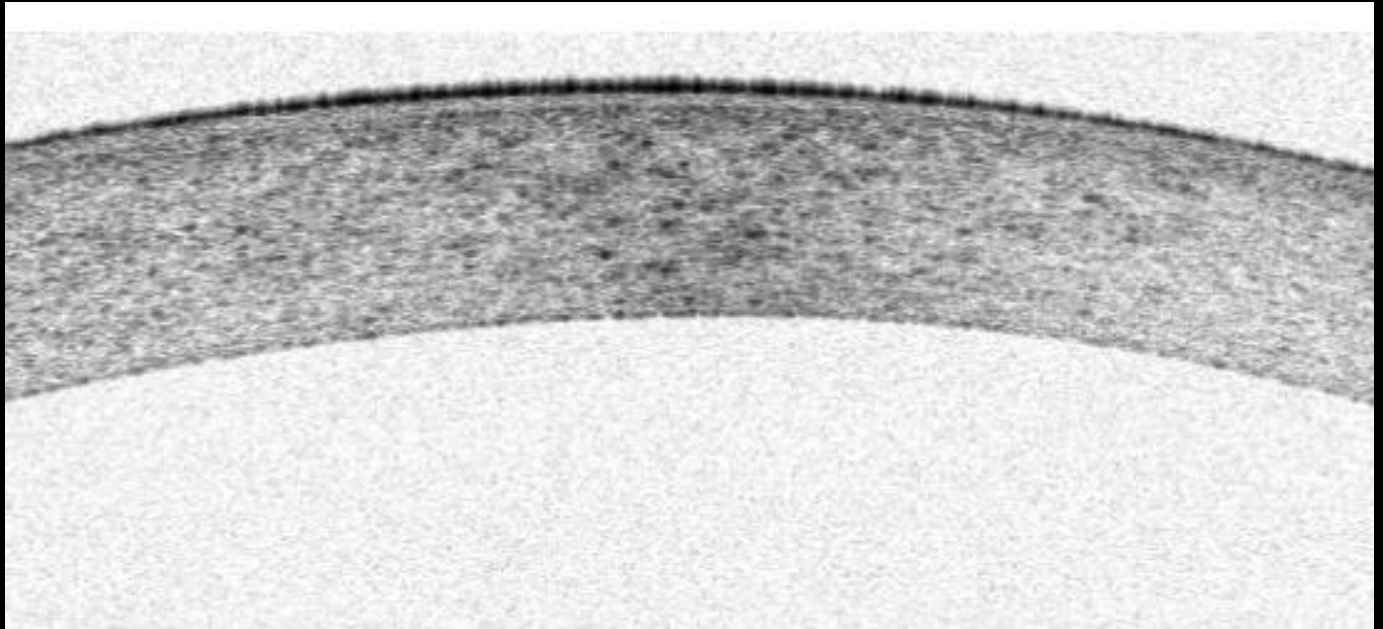
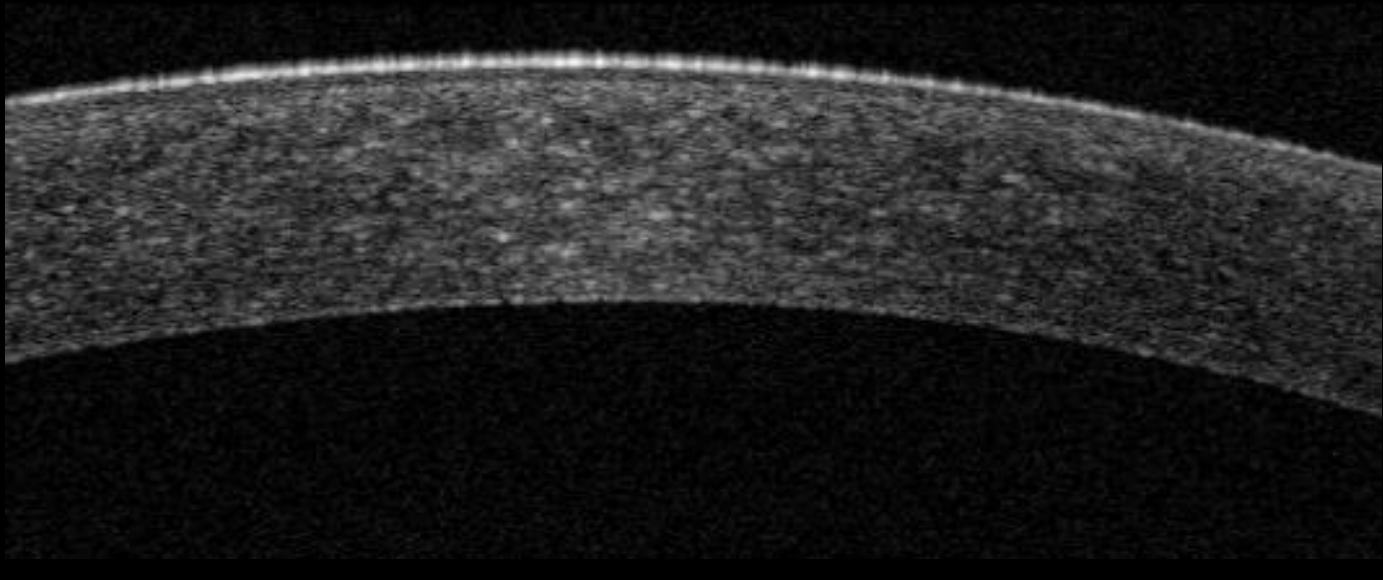
- Angolo di osservazione 45°
- Profondità di scansione 2,3 mm
- Allineamento automatico del segnale OCT
- Selezione acquisizione vitreo/coroide/segm. Ant.
- Segmento anteriore: Cornea, Cristallino
- Overlap: più scansioni lineari, sovrapposizione e media
- Ricostruzione retiniche e segmento anteriore del segnale OCT (3D)
- Sfogliare il volume 3D per assi cartesiani (cropping) e per strati (peeling)
- ...e forse (in futuro) en face

Tipo di acquisizione

- Lineare
- 3D
- Circolare
 - Falsi colori
 - Scala di grigi

Escludiamo

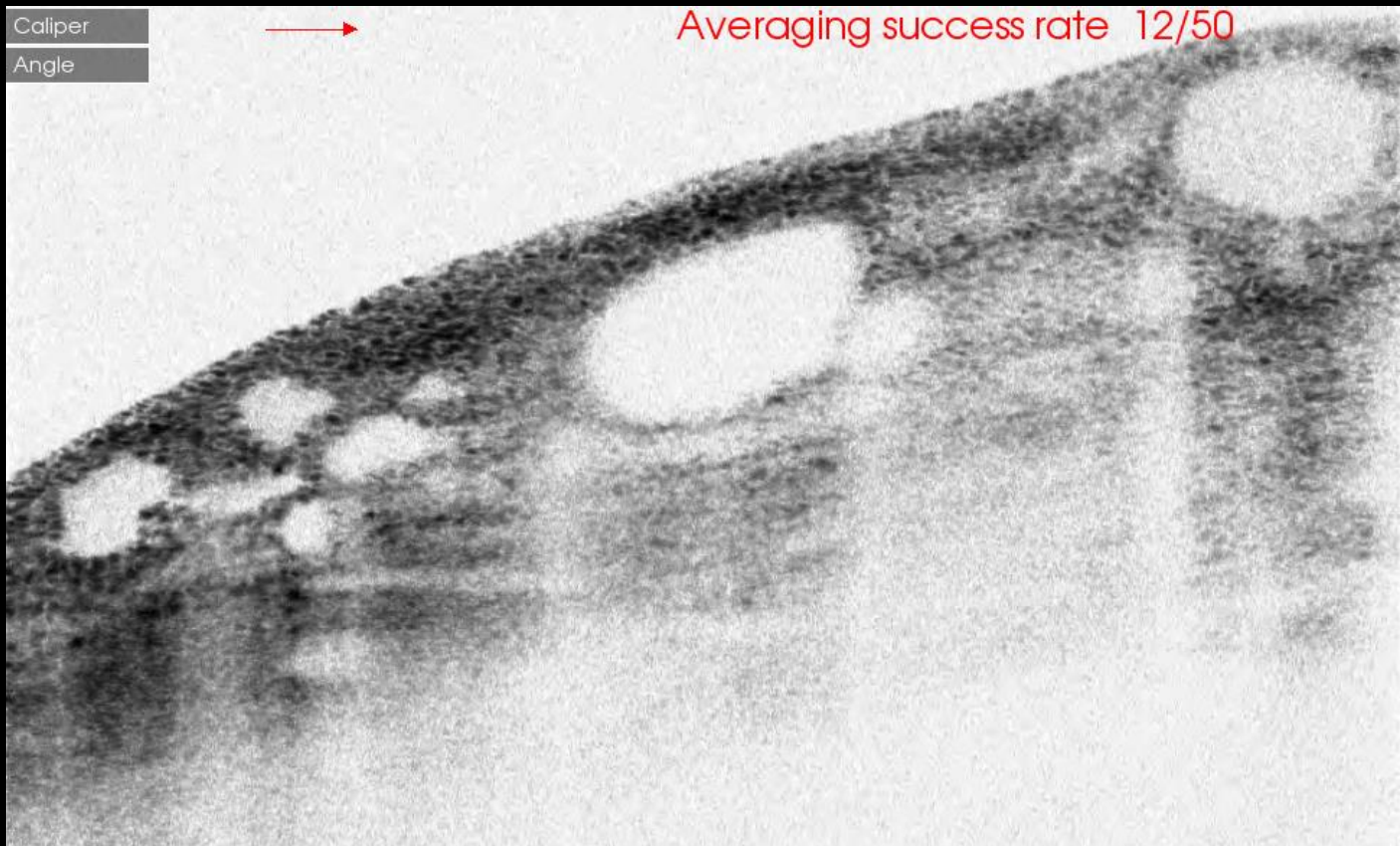




Lineare

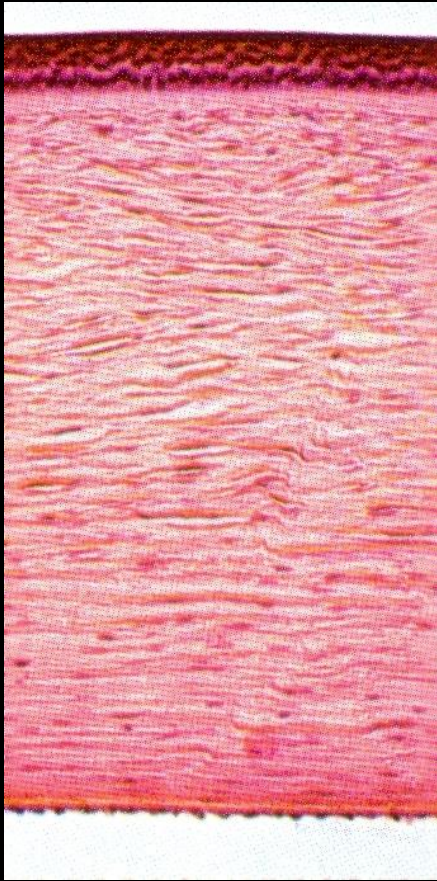
- Semplice (3 o 6 mm)
- Overlap (da 0 fino a 50 scansioni)
- Orientata su 360° (orizzontale, verticale e angoli intermedi)
- Multiple su 360° (in contemporanea)
- Raster (con linee a varie distanze)
- Eseguire misurazioni

3 mm è straordinaria!

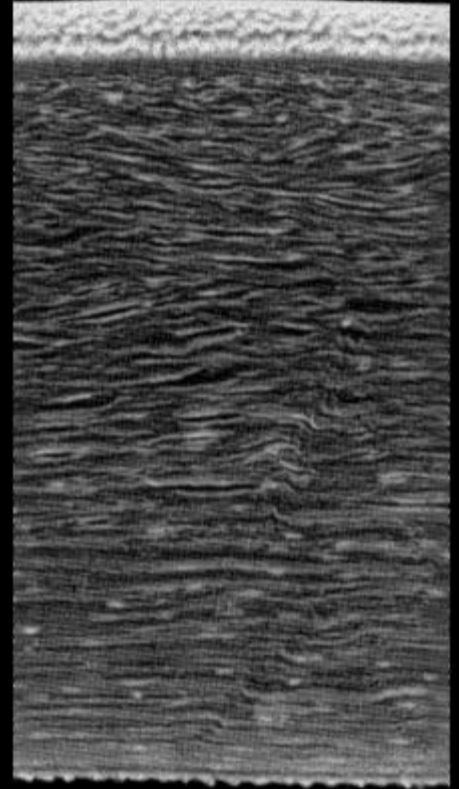
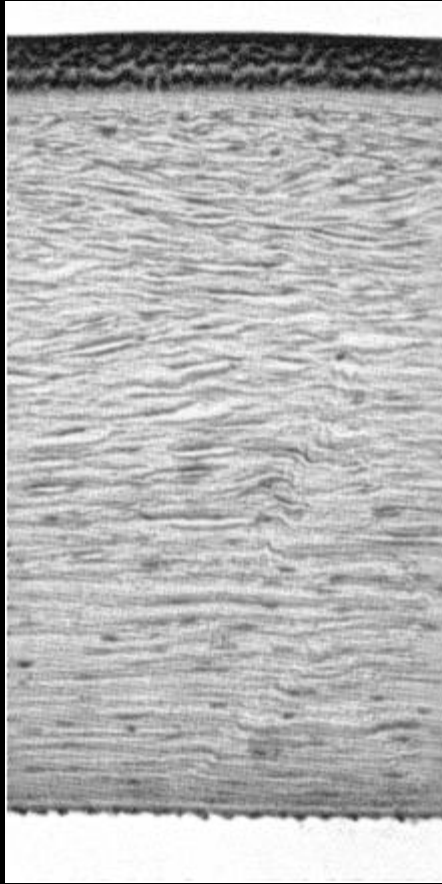
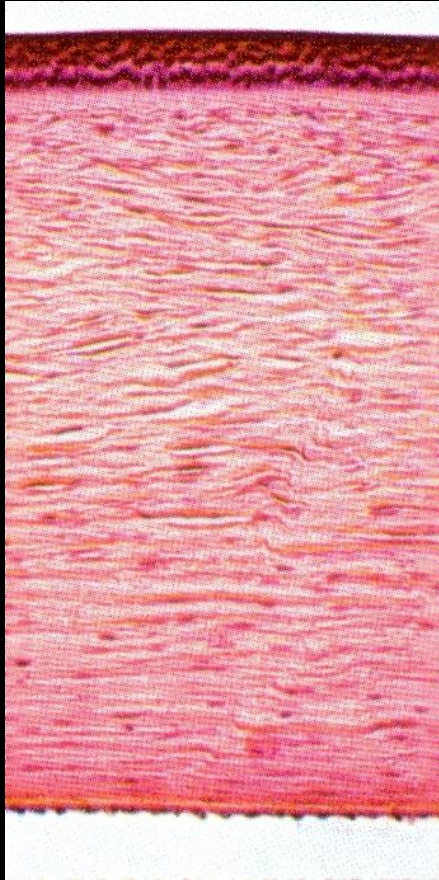


CORNEA

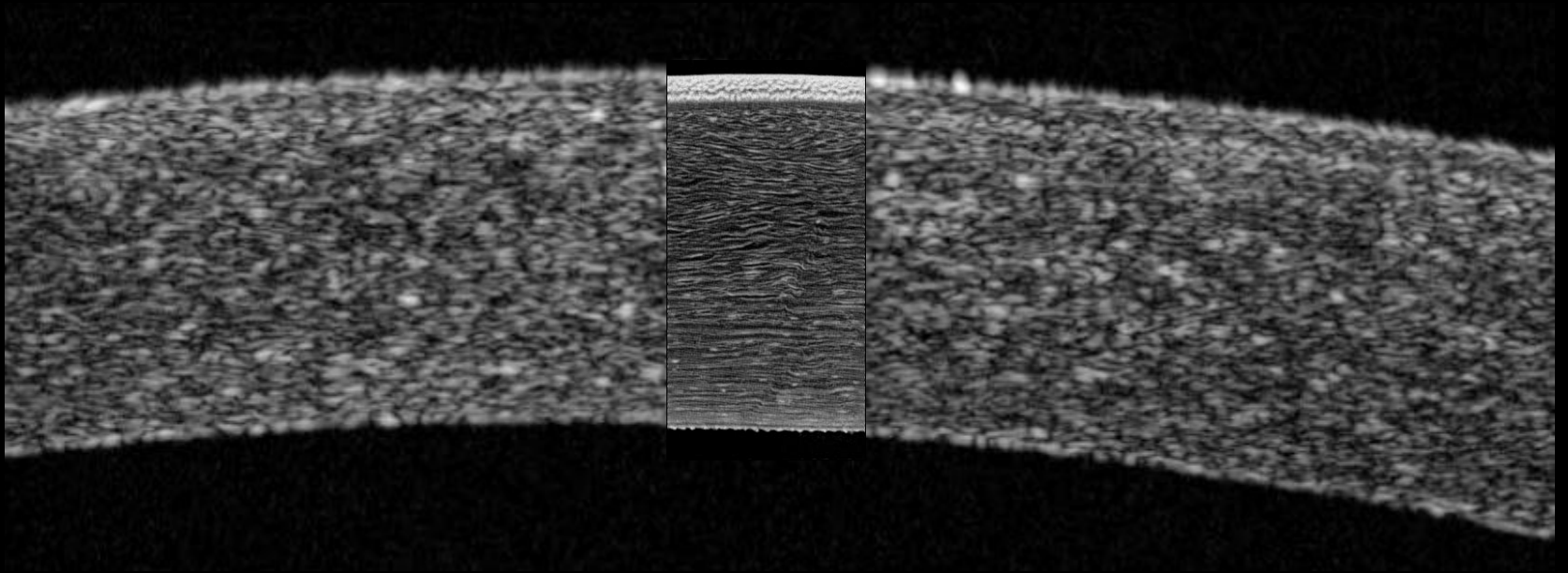
Istologia della cornea



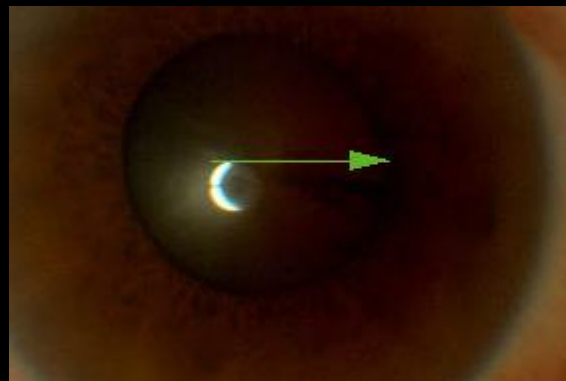
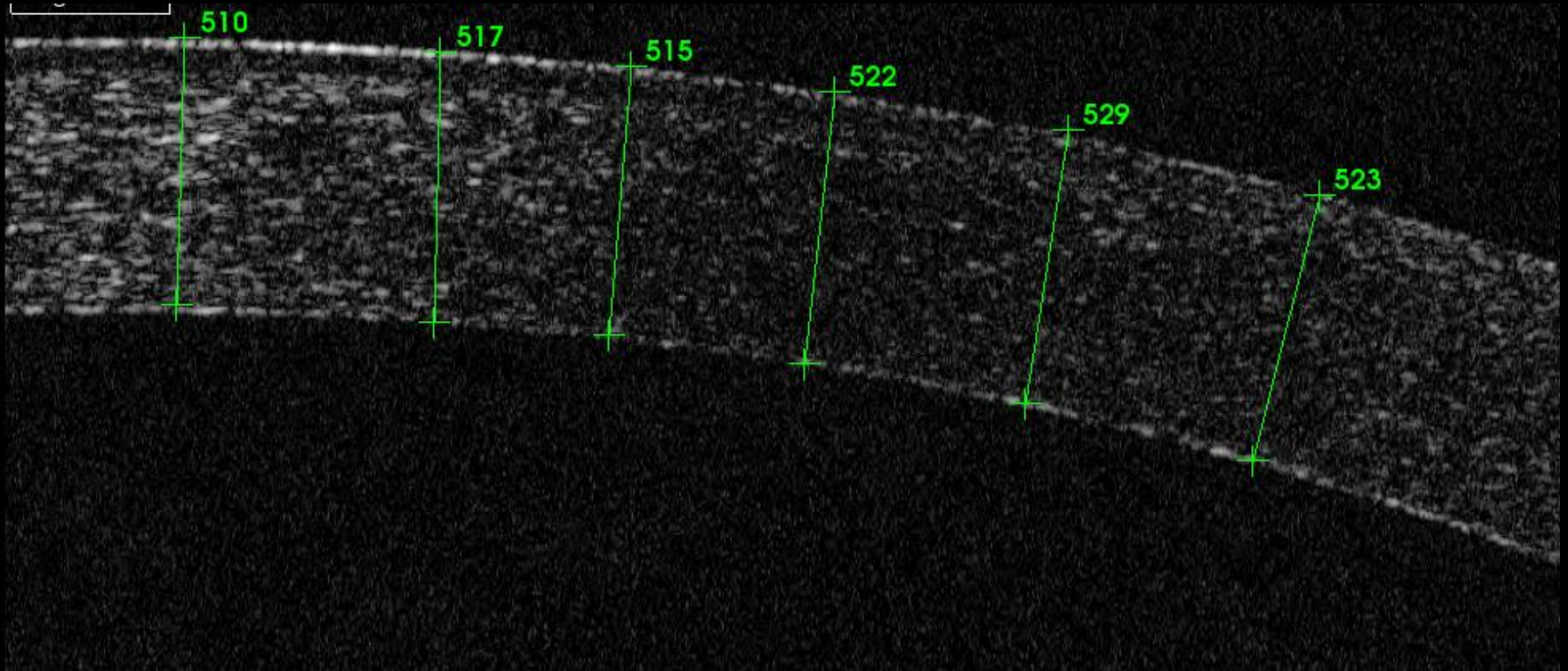
- Film lacrimale: 7 a 9 μ
- Epitelio: 50 μ
- Bowman: 8 a 14 μ
- Stroma: 486 μ
- Descemet: 5 a 10 μ
- Endotelio: 20 μ



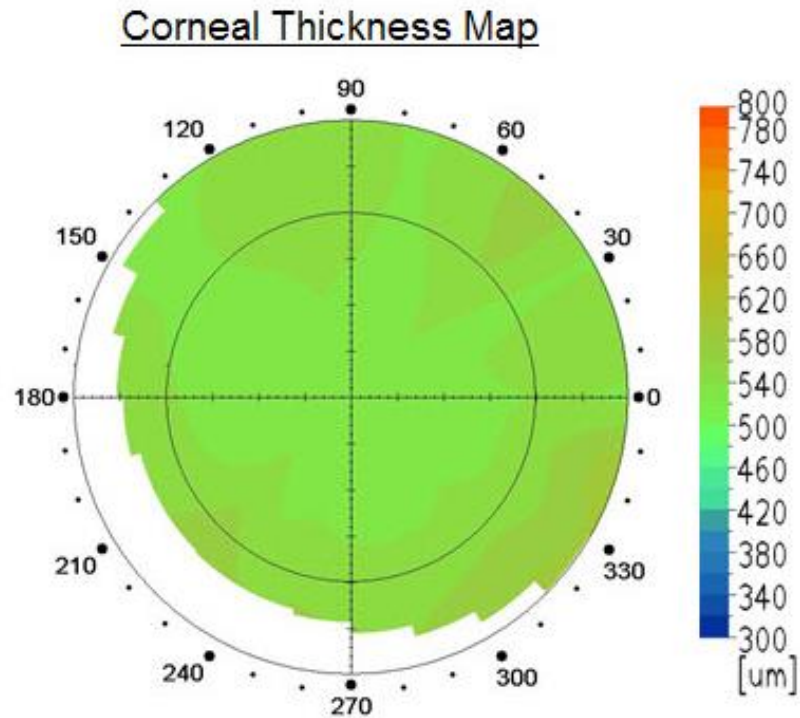
Analogie istologico - OCT



Misurazioni manuali



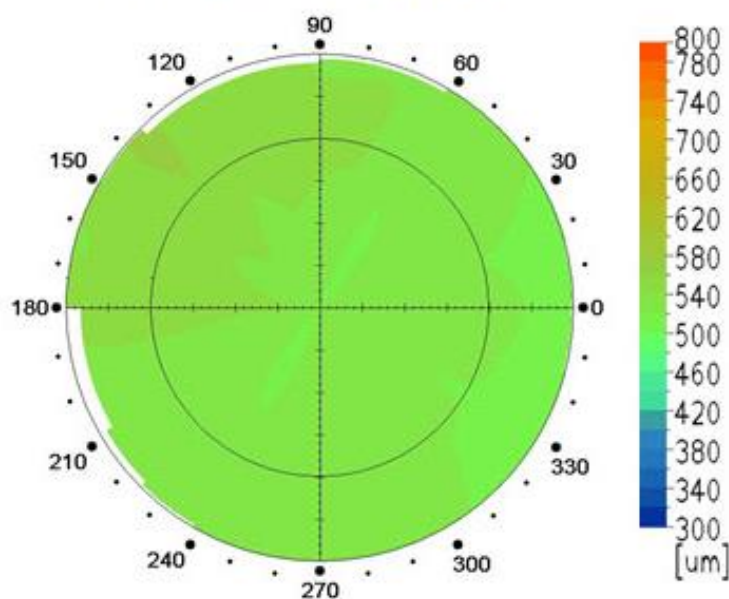
Misurazioni automatiche



Center Corneal Thickness : 526um

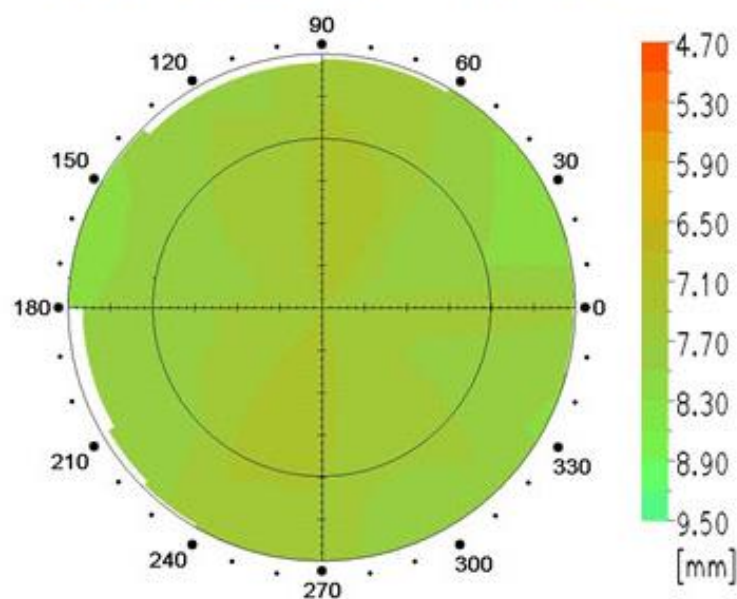
Mappa pachimetrica e Cheratometrica

Corneal Thickness Map



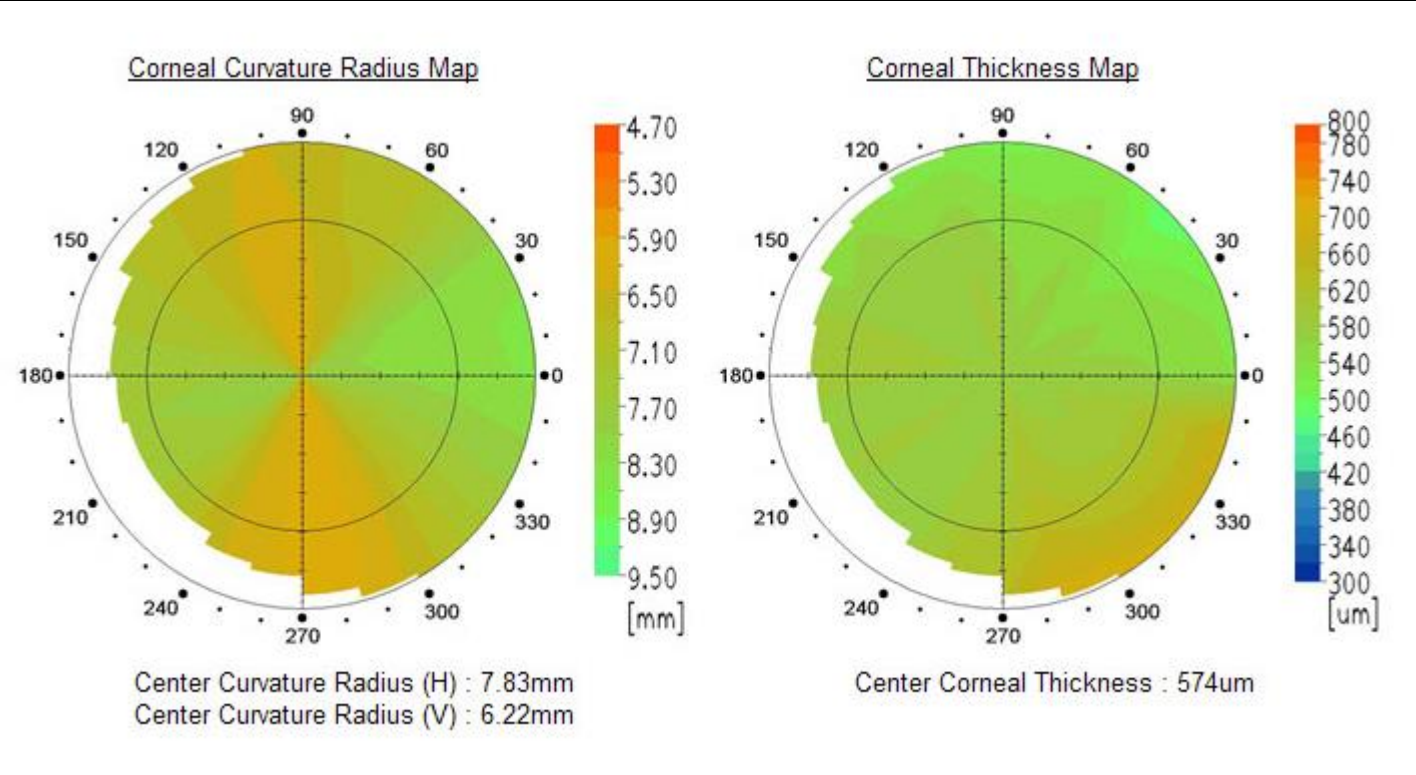
Center Corneal Thickness : 526um

Corneal Curvature Radius Map

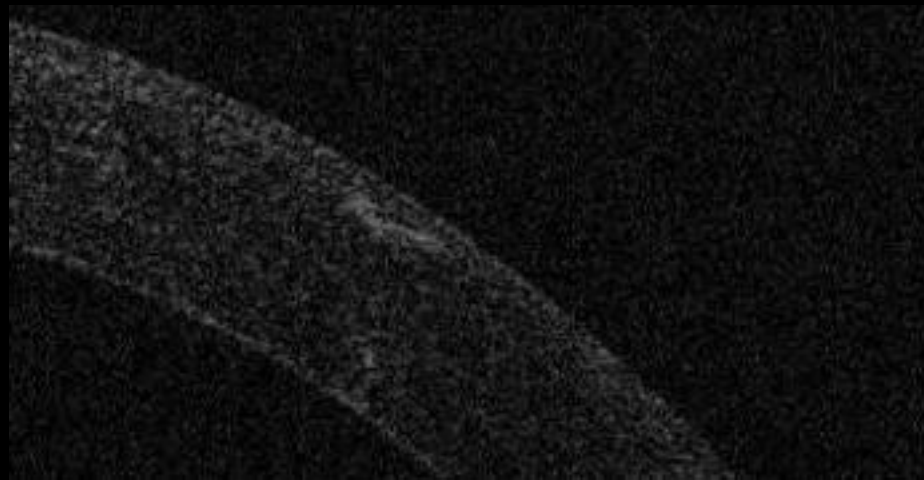
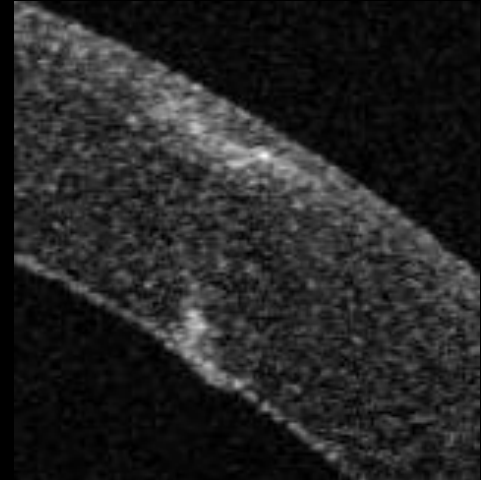
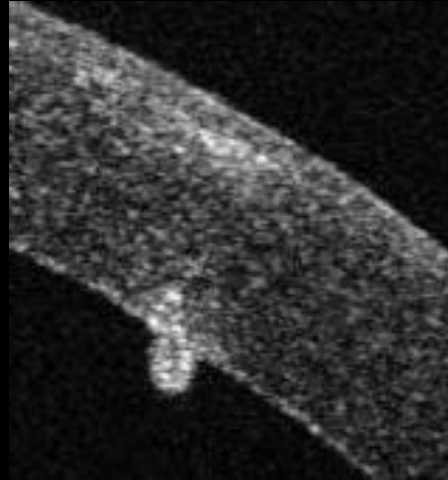
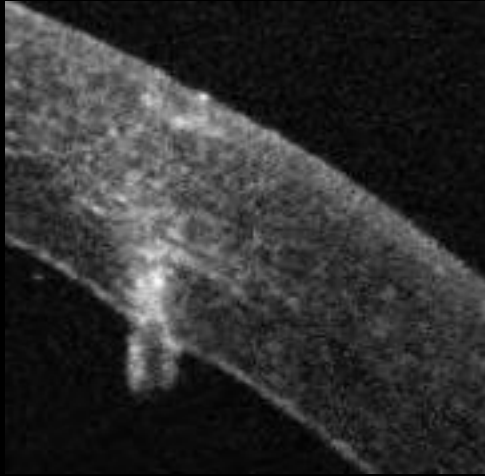


Center Curvature Radius (H) : 7.61mm
Center Curvature Radius (V) : 7.28mm

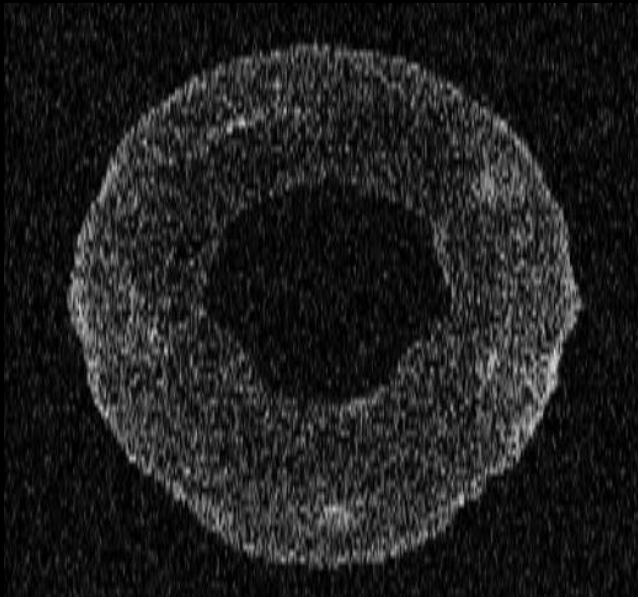
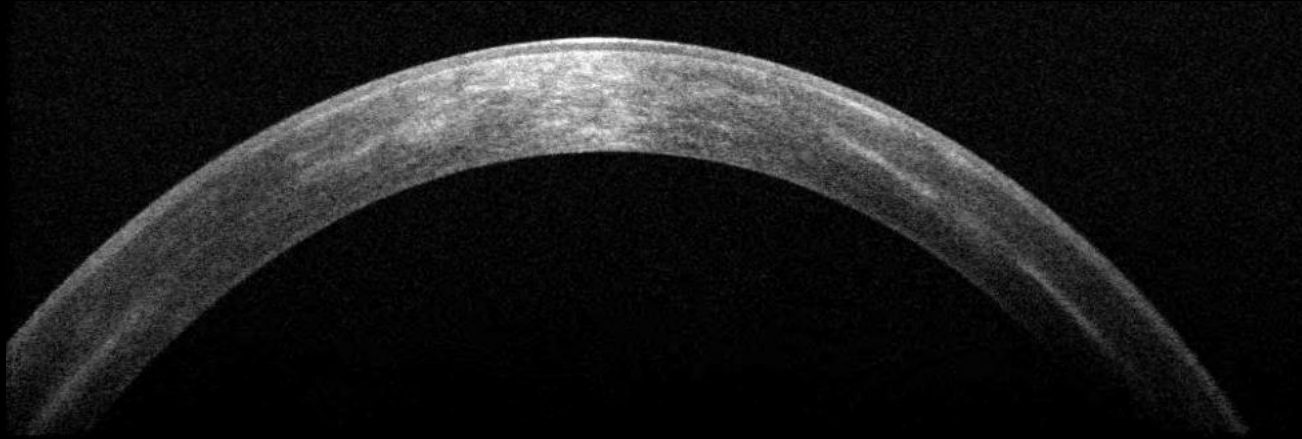
Astigmatismo elevato dopo cheratoplastica



Spina di cardo corneale

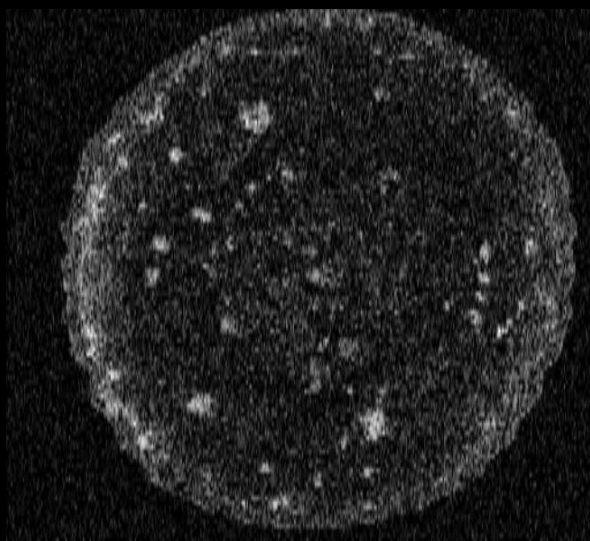
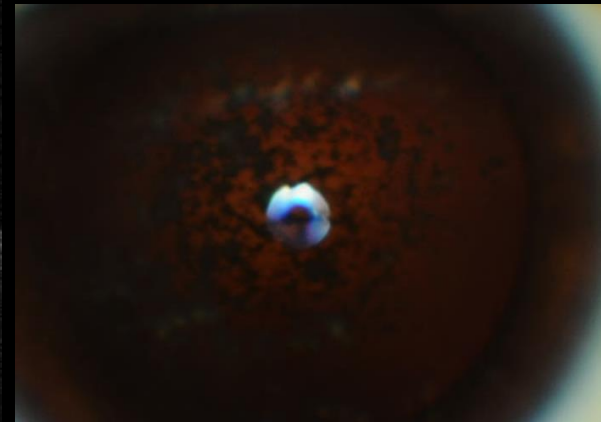
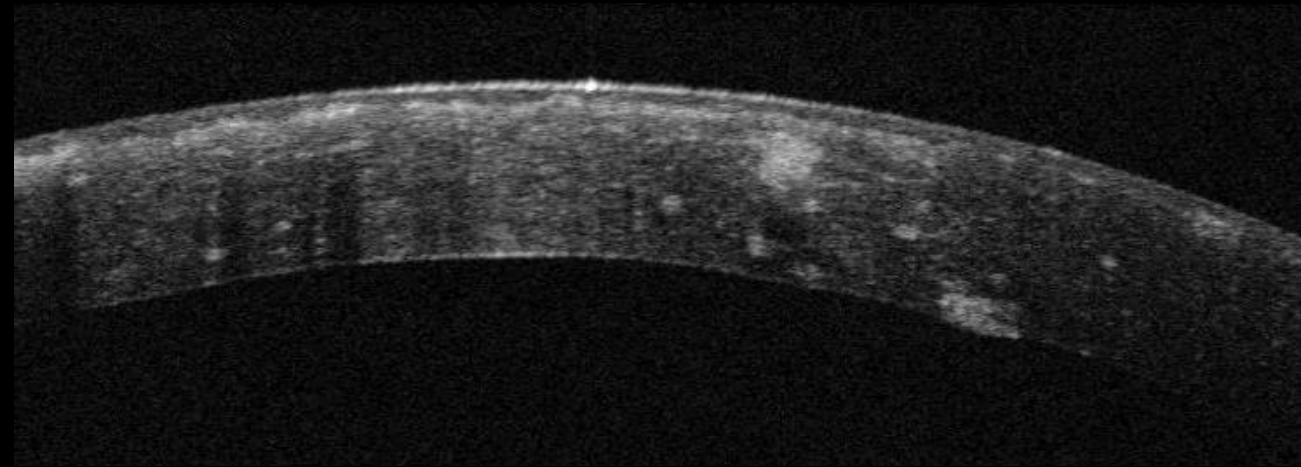


Cheratite da *Acanthamoeba*

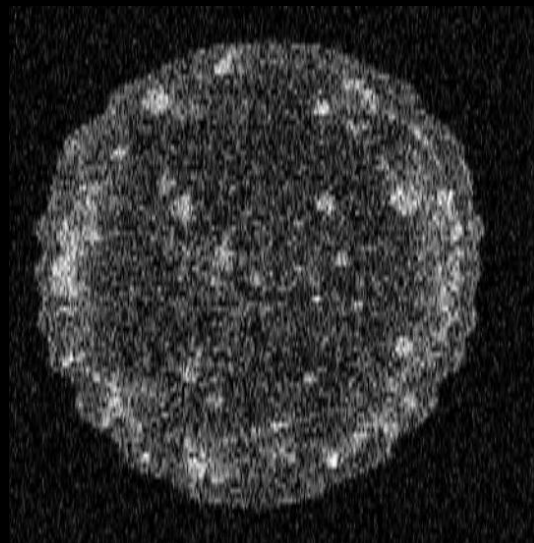


Infiltrati perineuronali

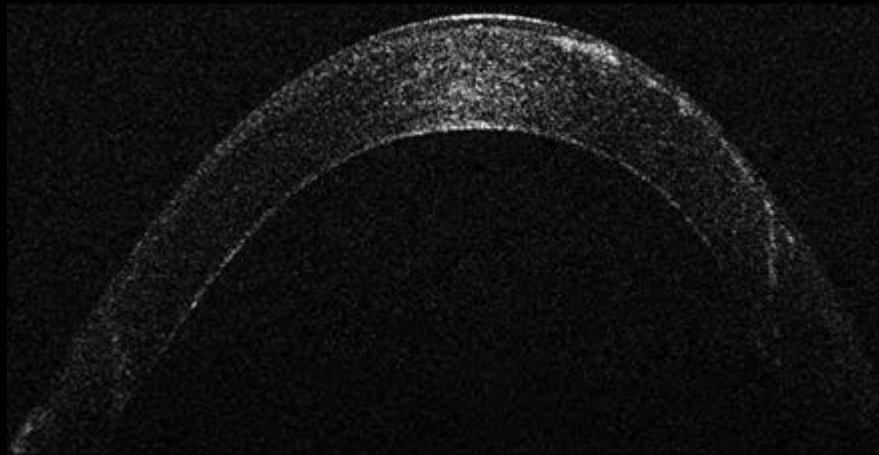
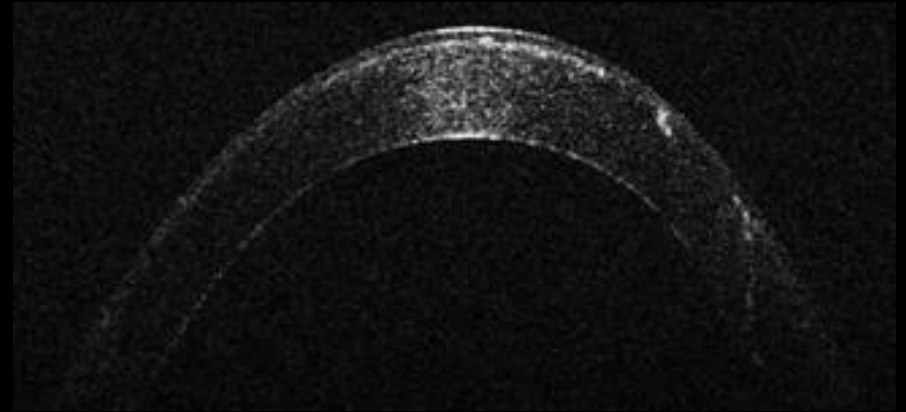
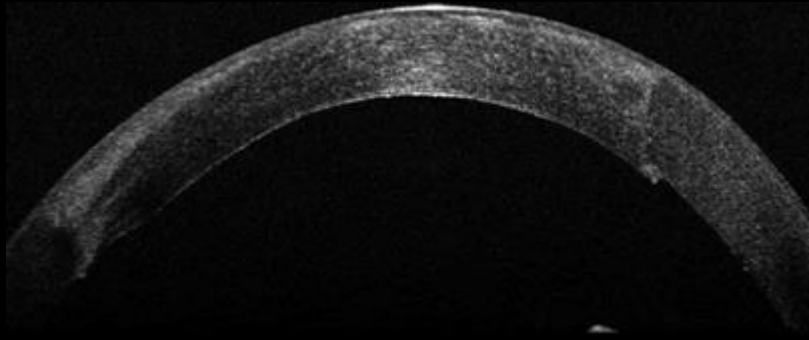
Groënow 2



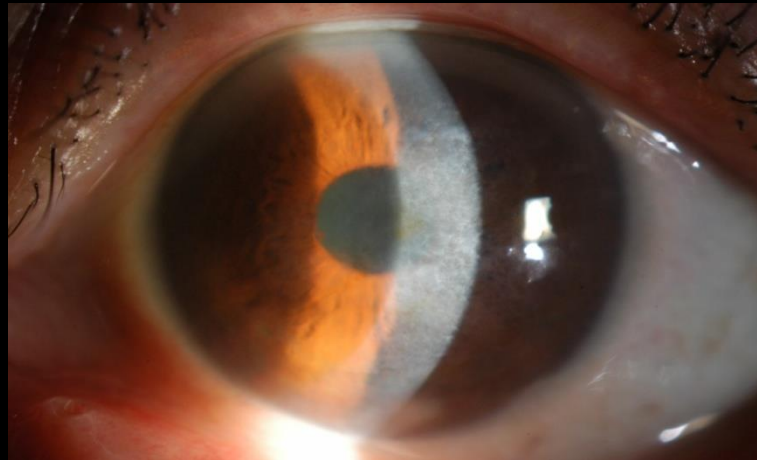
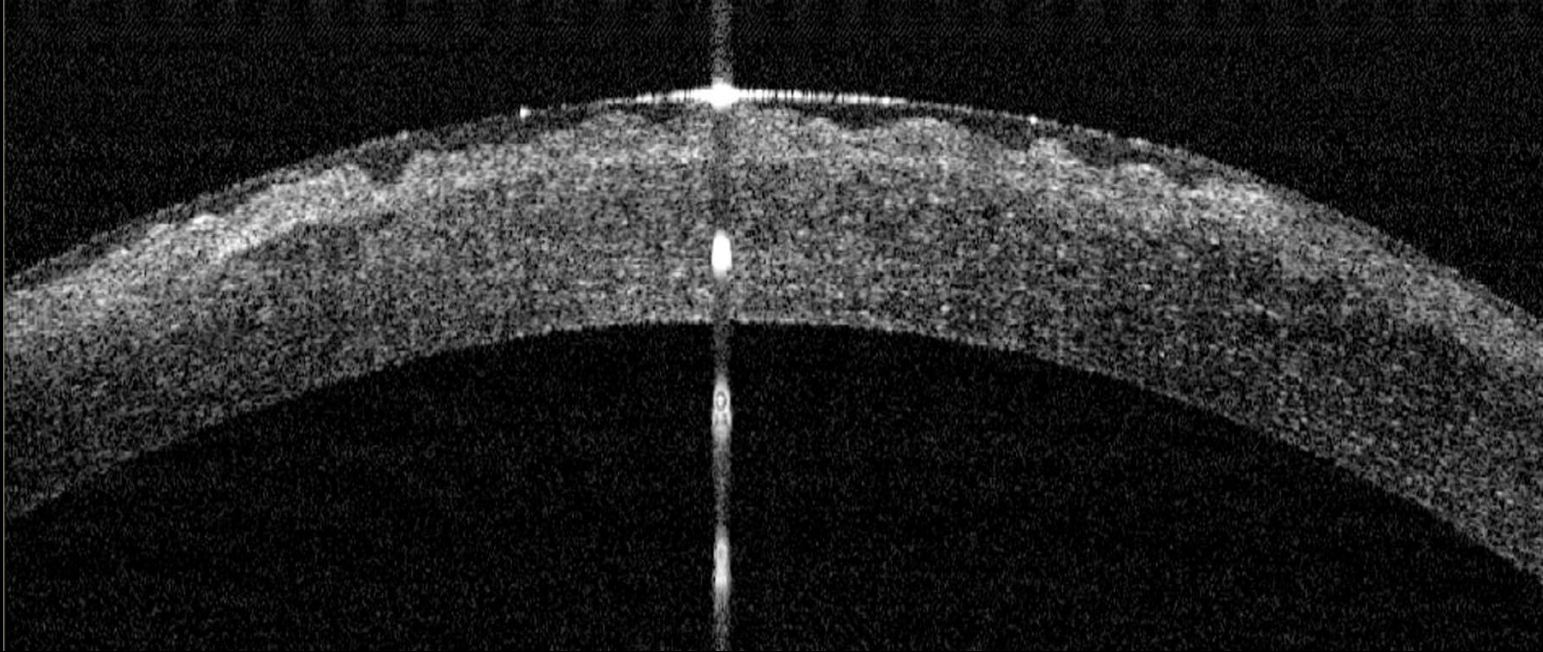
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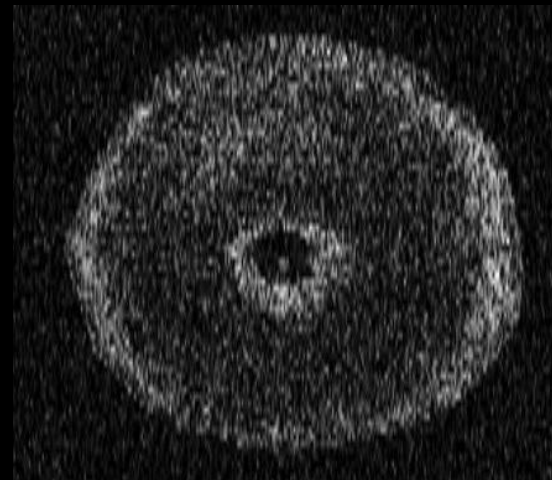
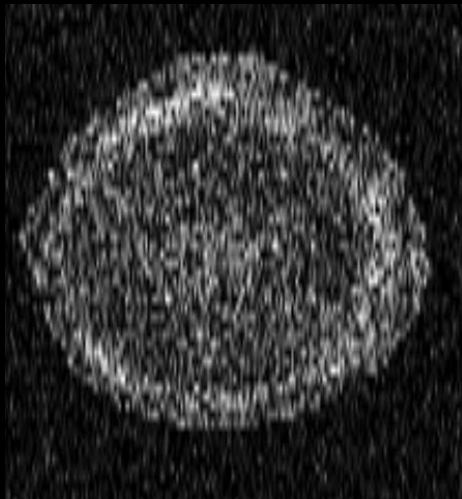
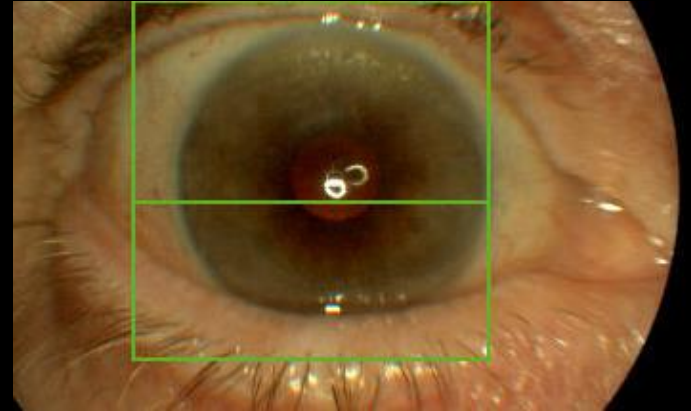
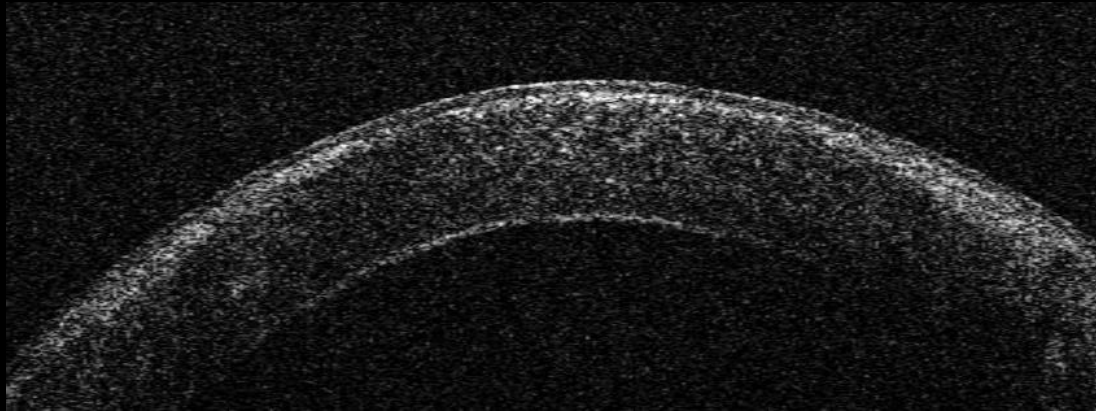
Groënow 2 su cheratoplastica



Reiss Bucklers



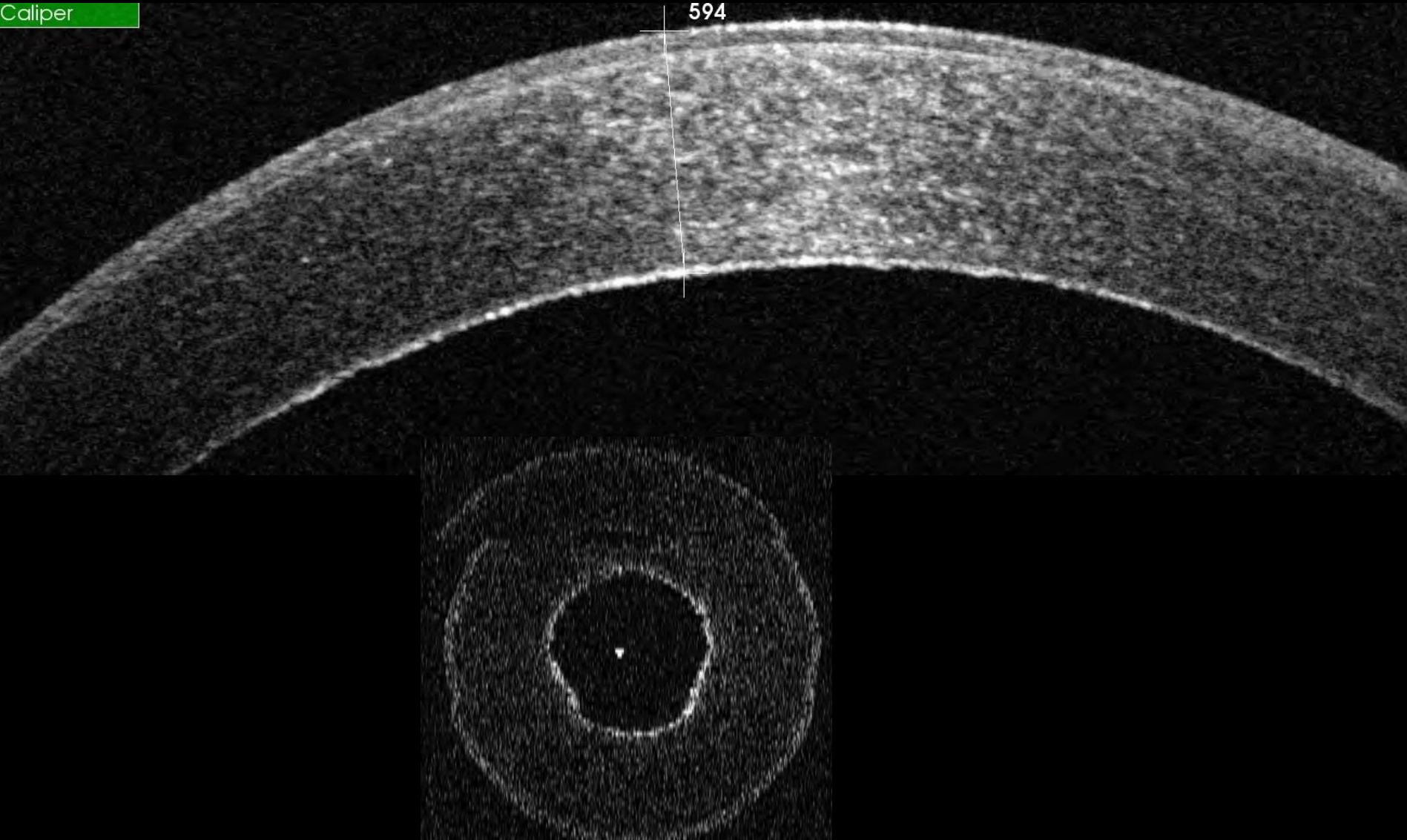
Reiss Bucklers su cheratoplastica



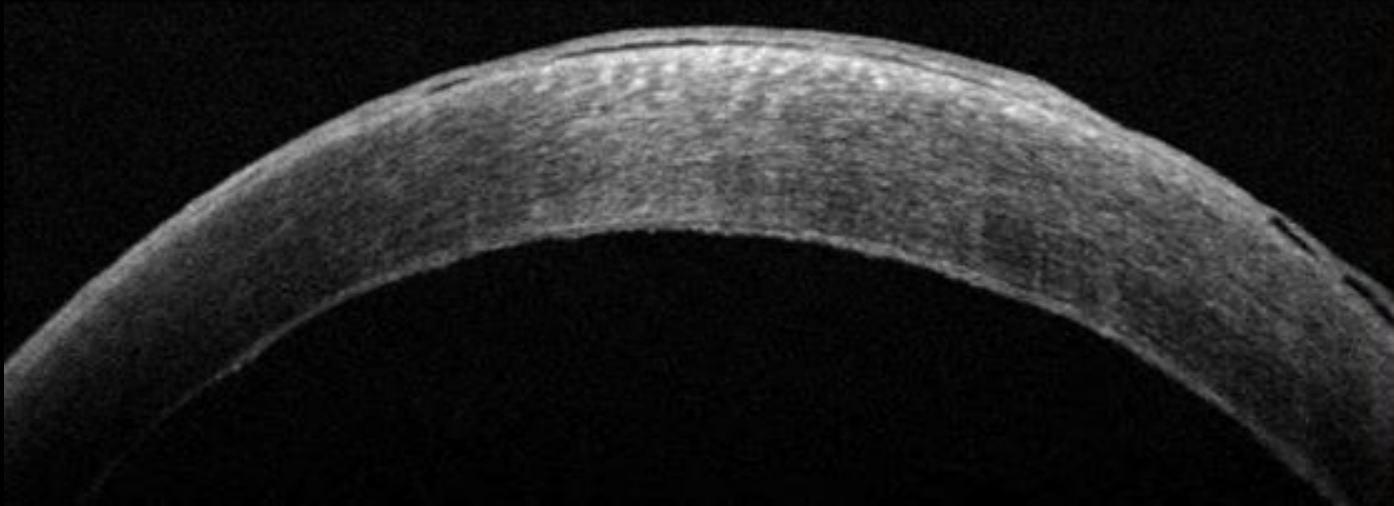
Degenerazione endoteliale di fuchs

Caliper

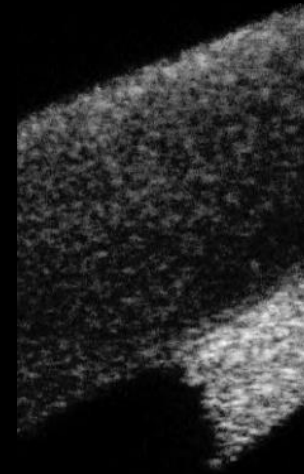
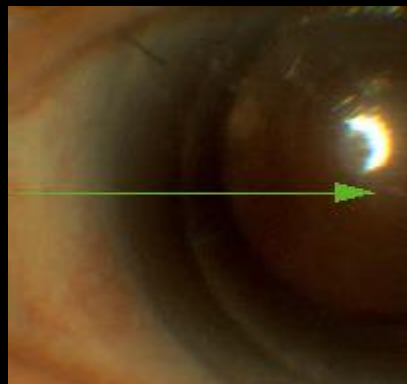
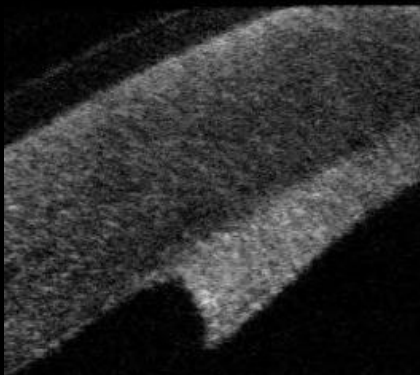
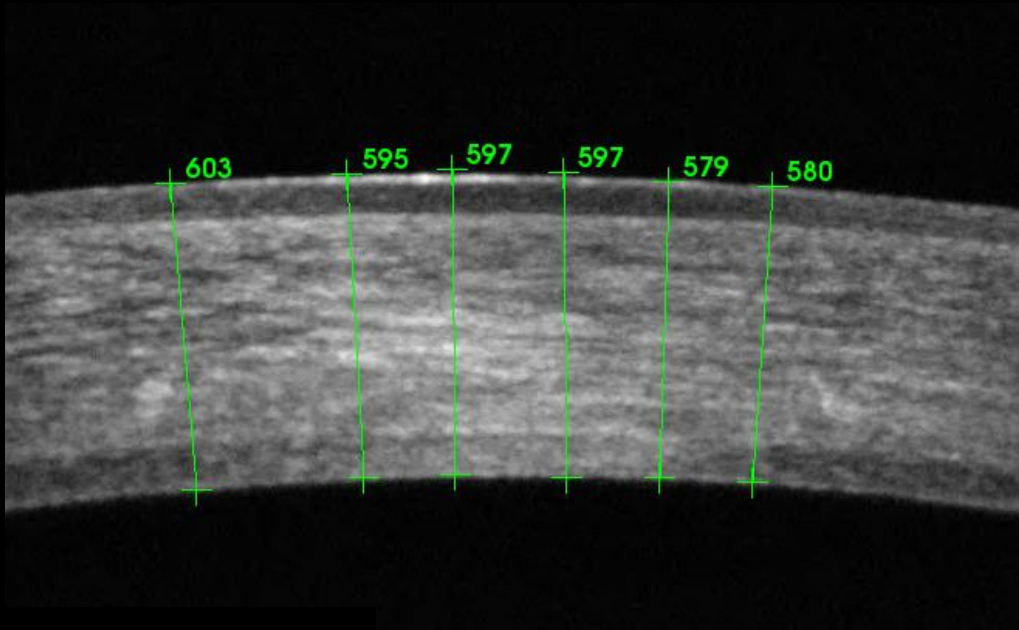
594



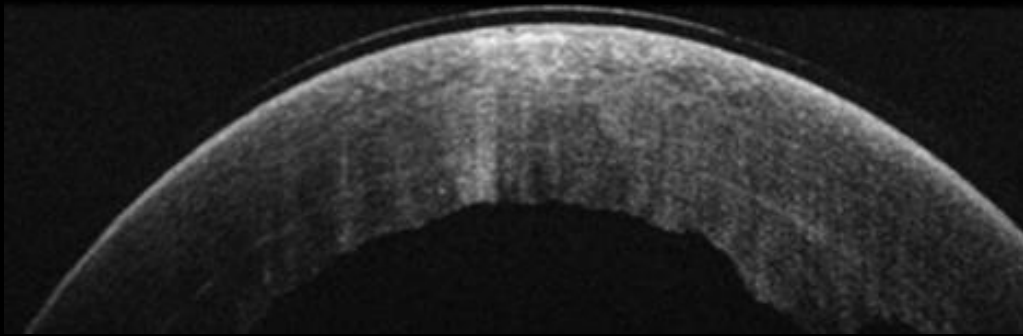
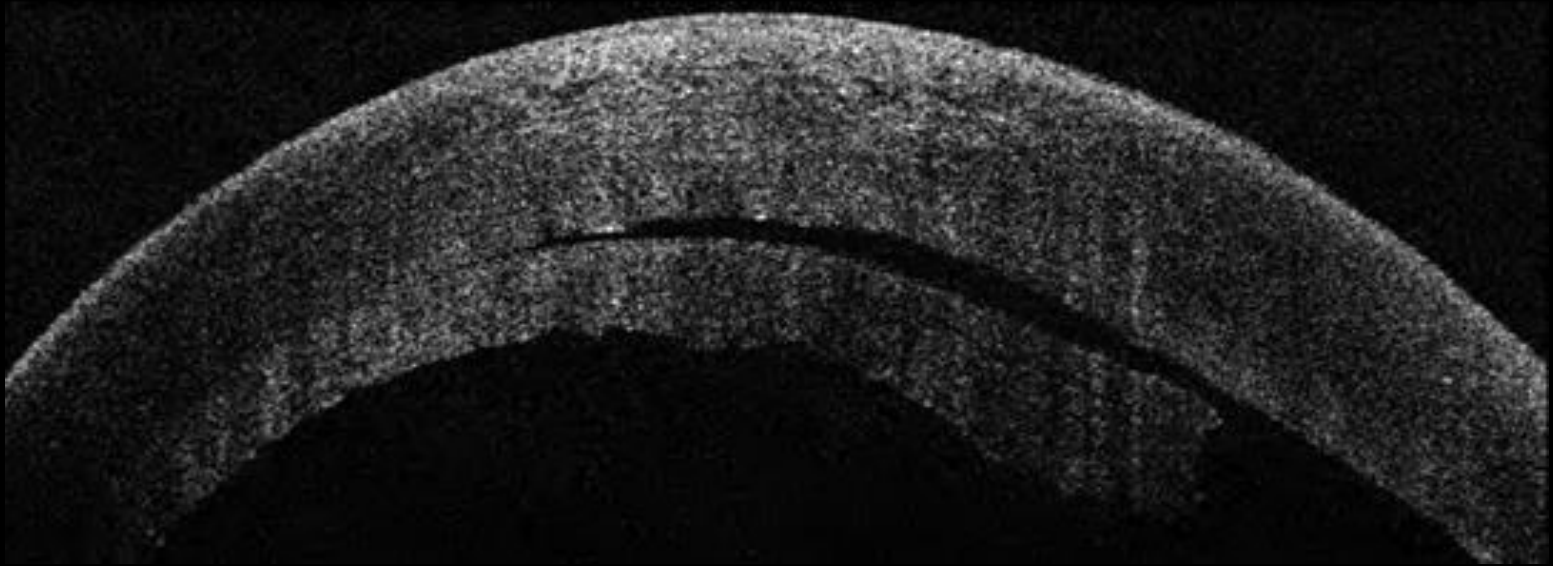
Scompenso corneale



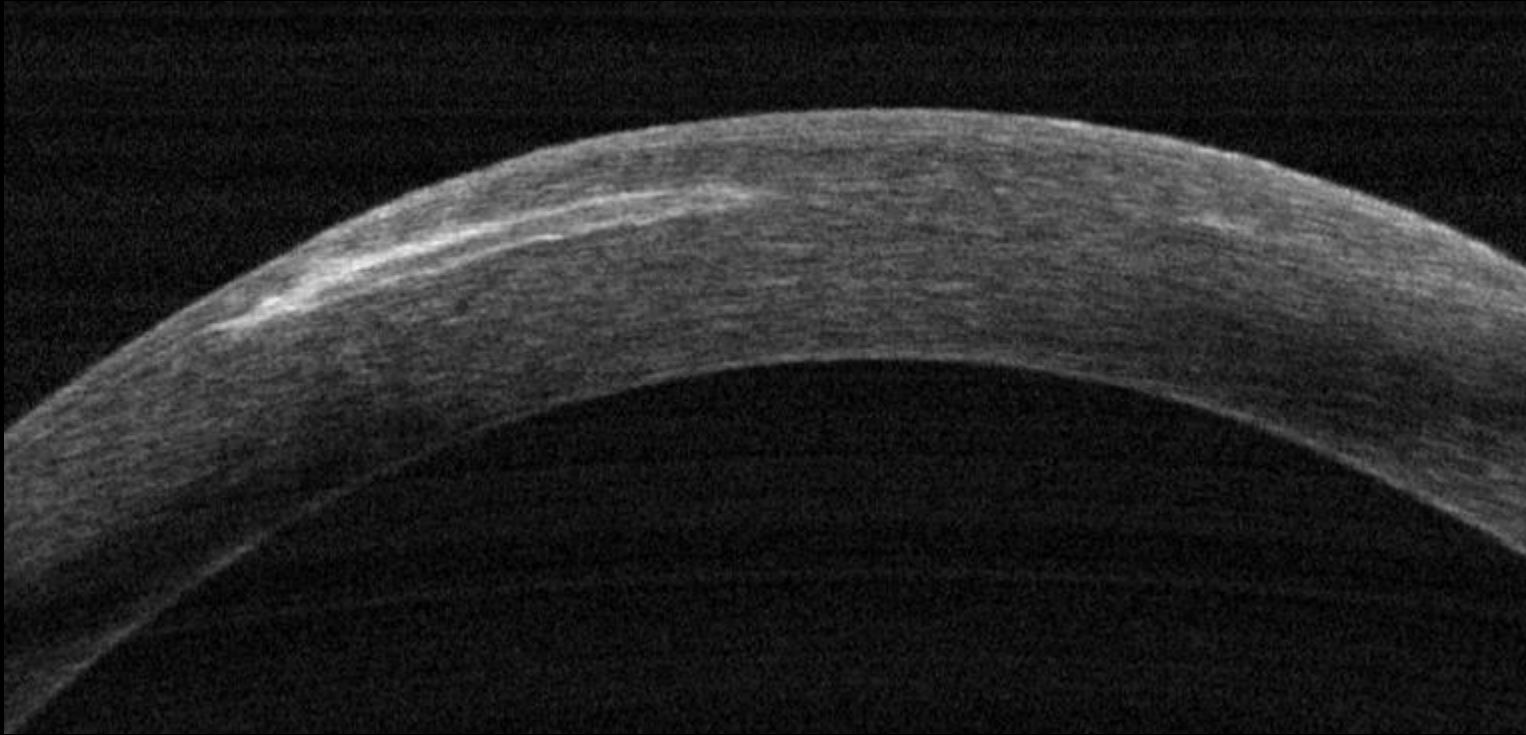
DSAEK



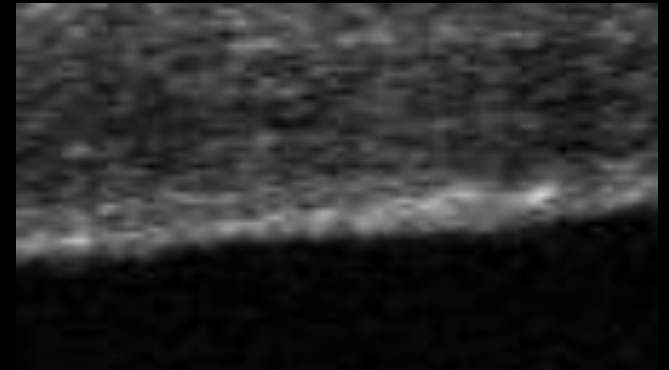
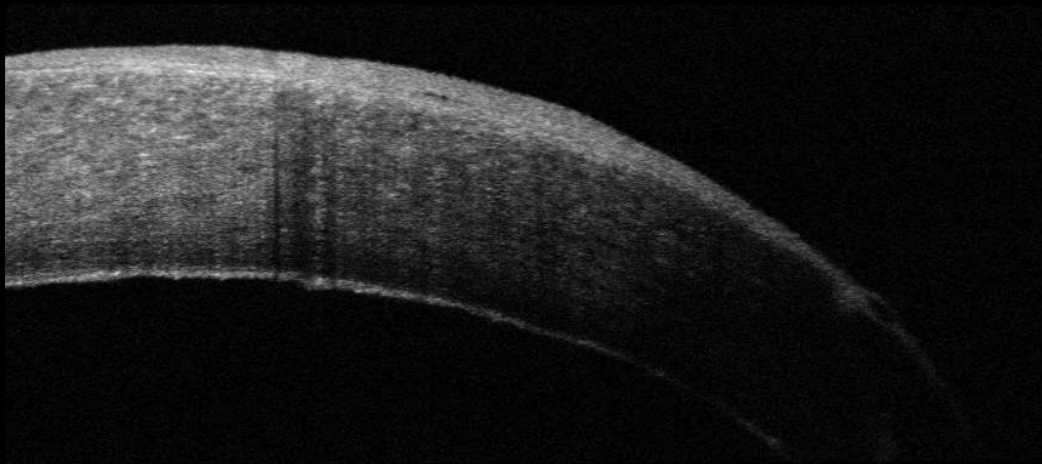
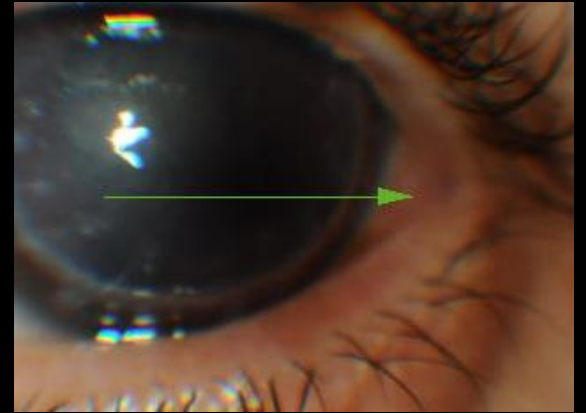
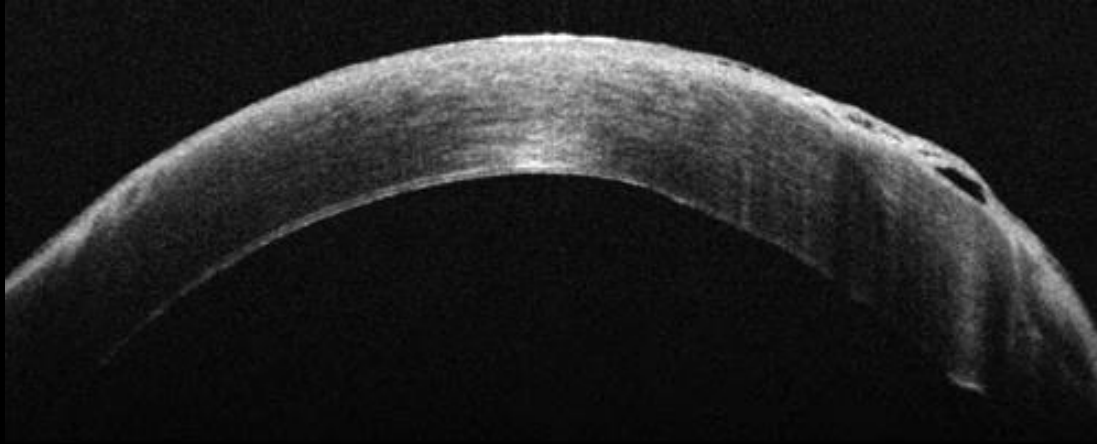
Caliper



Invasione epiteliale su LASIK



Rigetto endoteliale

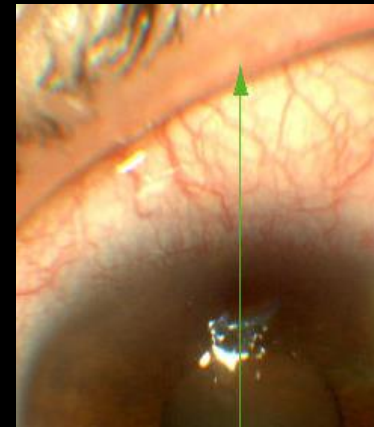
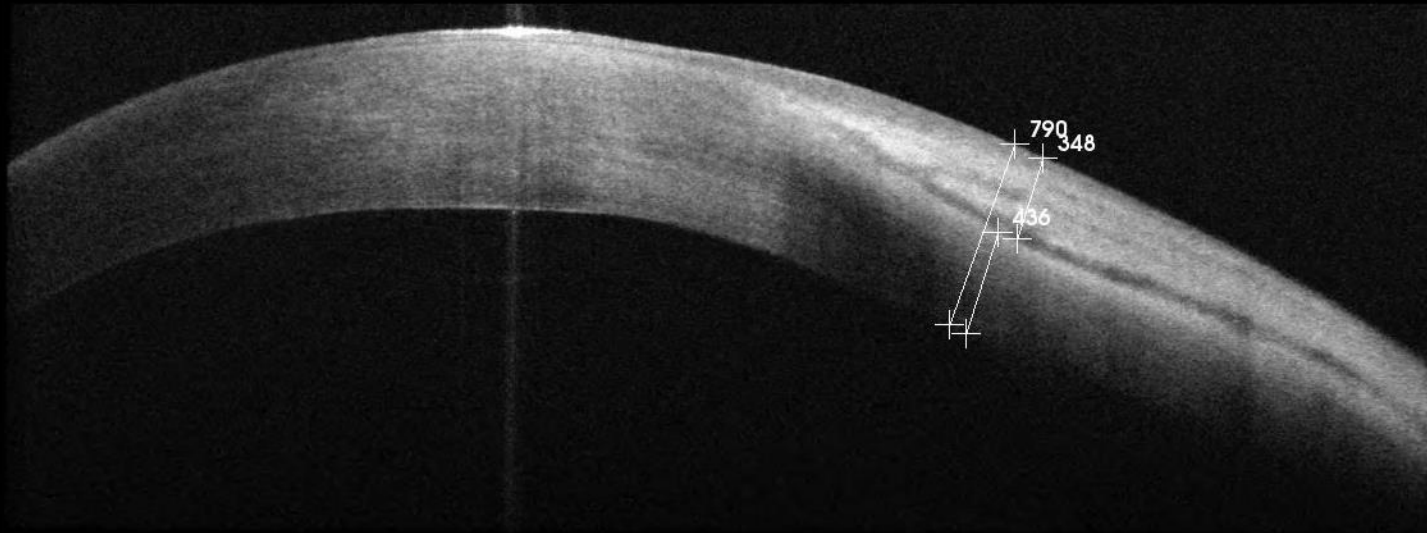


Descemetocoele

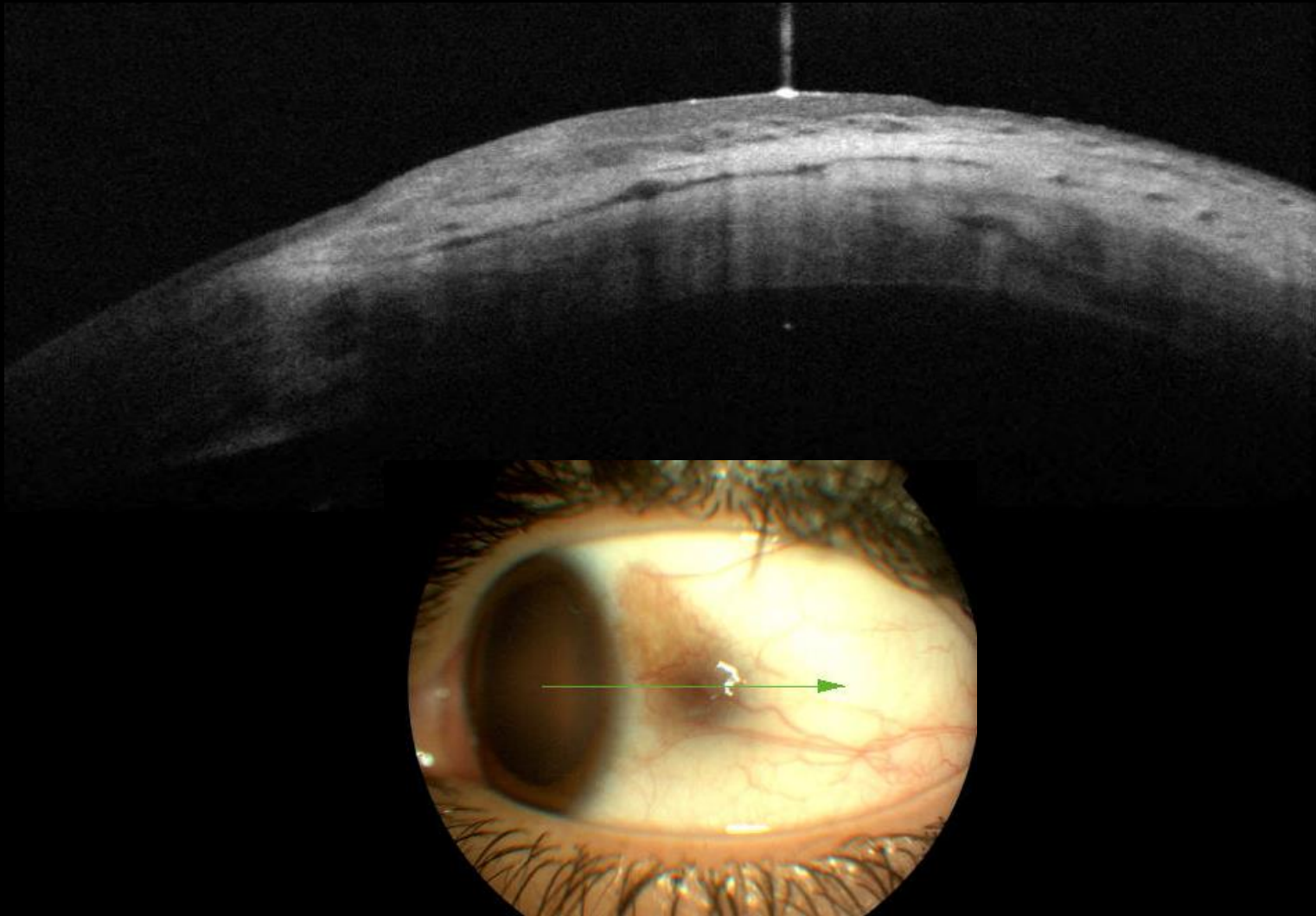


CONGIUNTIVA e SCLERA

Congiuntiva e sclera



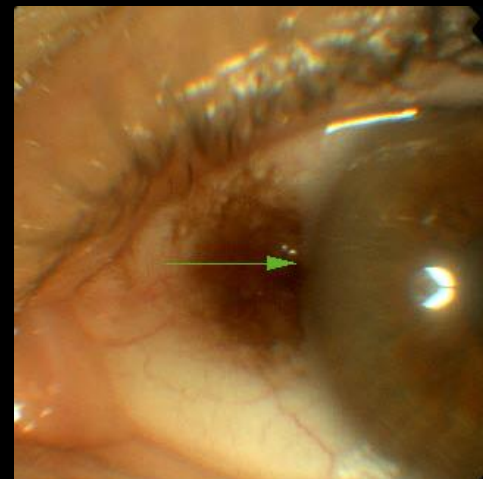
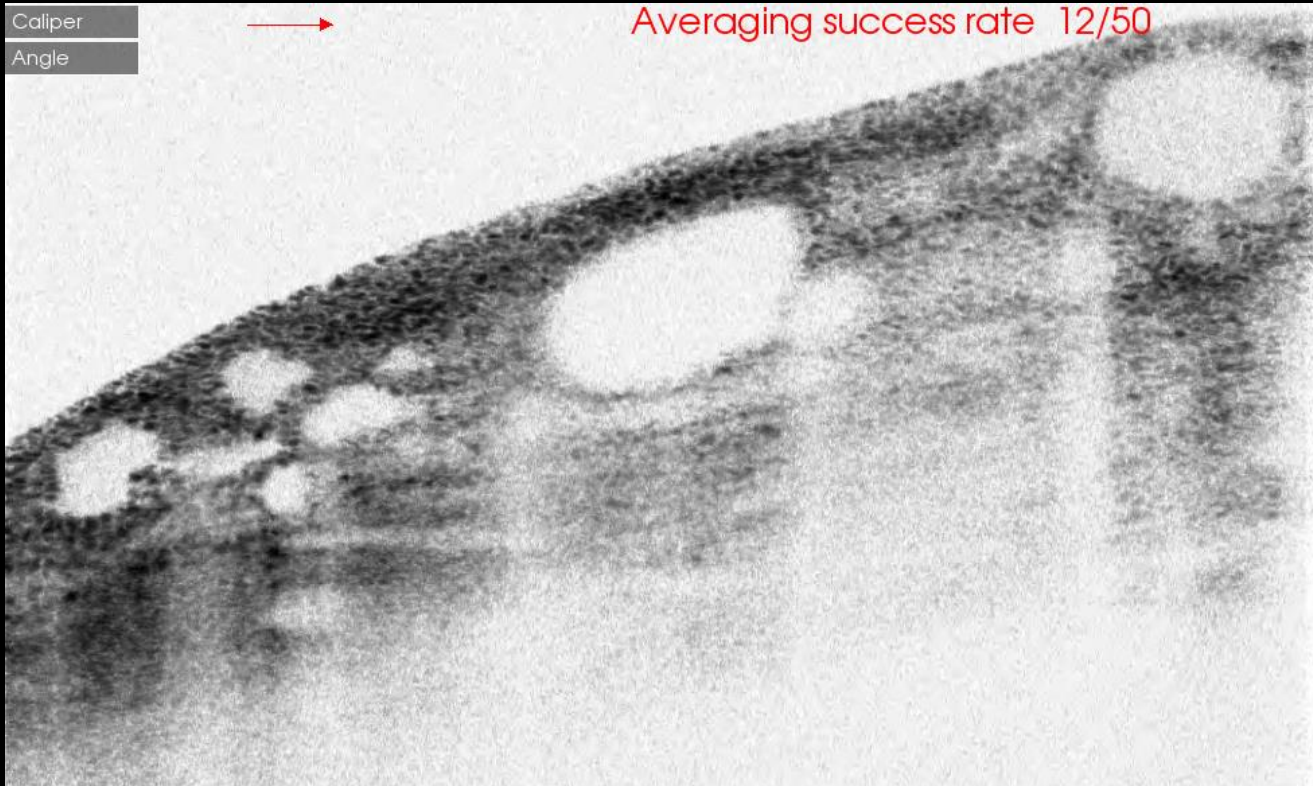
Nevo Congiuntivale



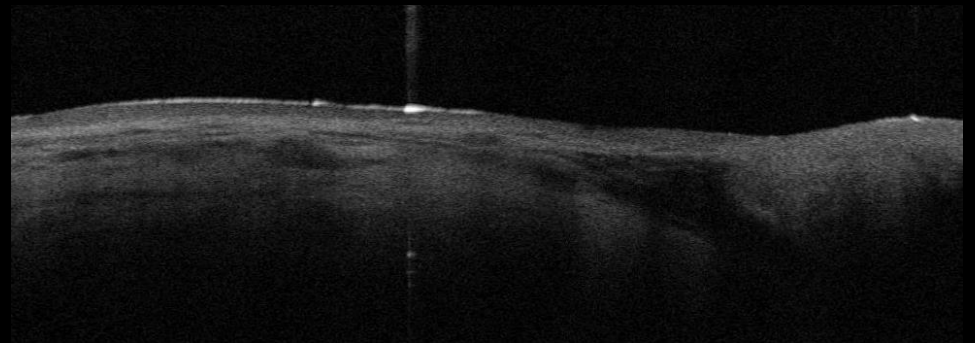
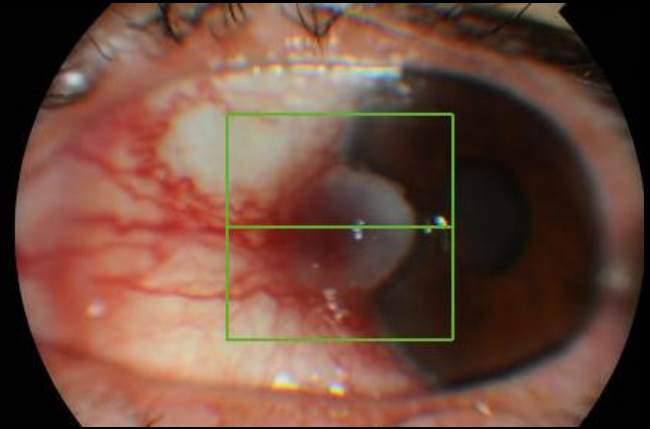
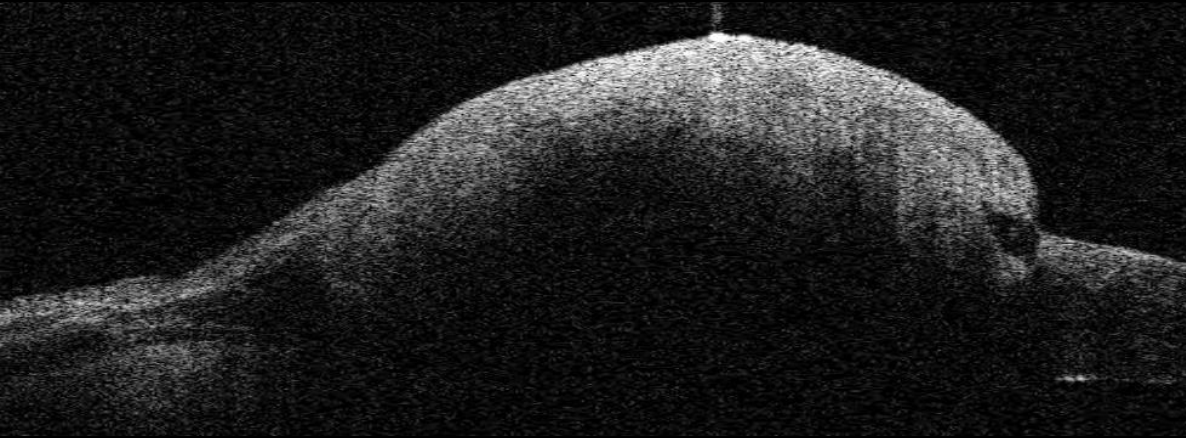
Caliper
Angle



Averaging success rate 12/50

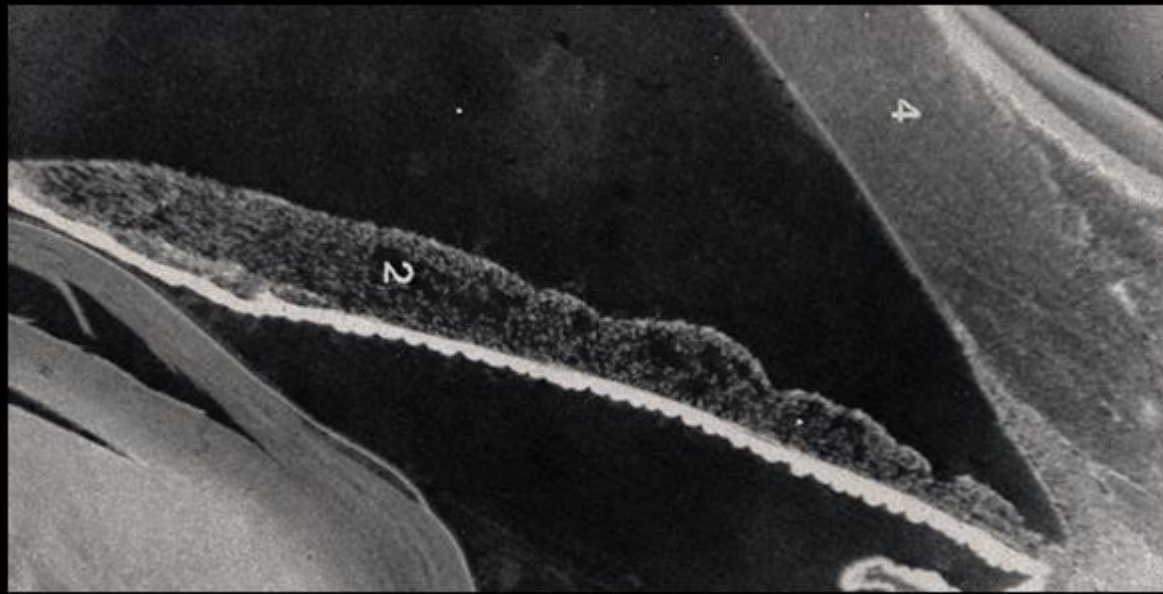
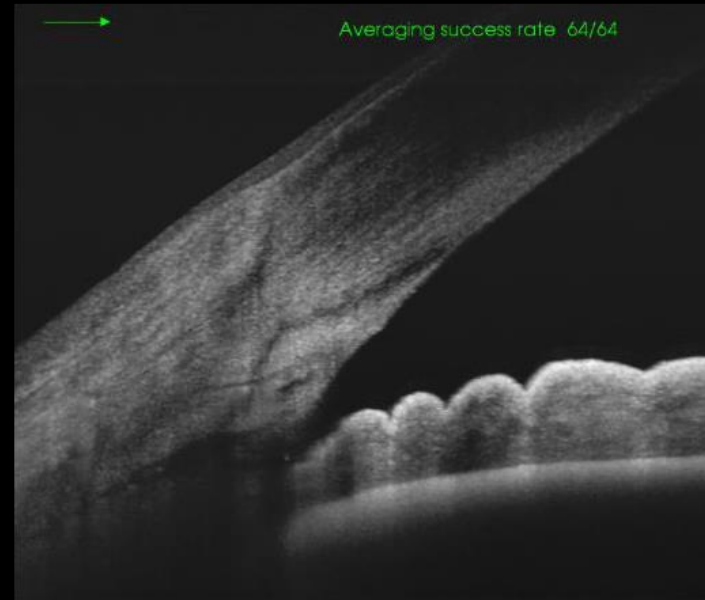
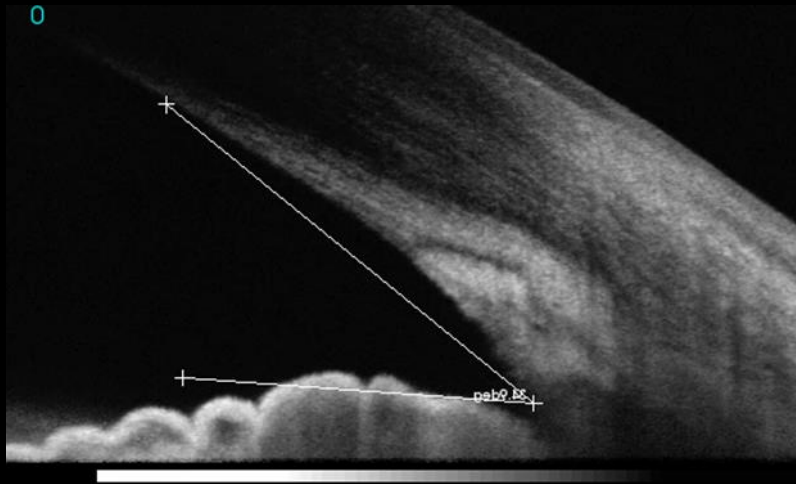


Carcinoma del limbus

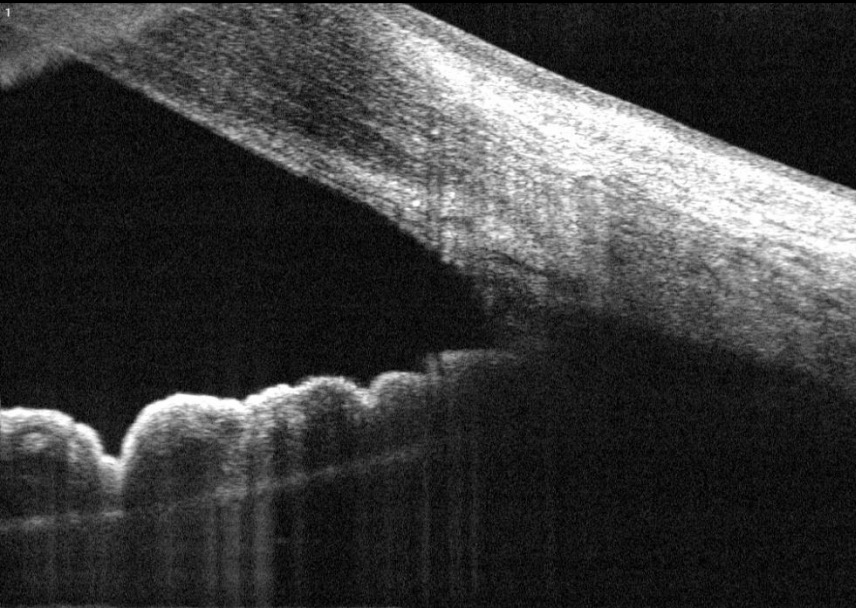


IRIDE e ANGOLO CAMERULARE

Analogie istologia - OCT



Stato dell'iride

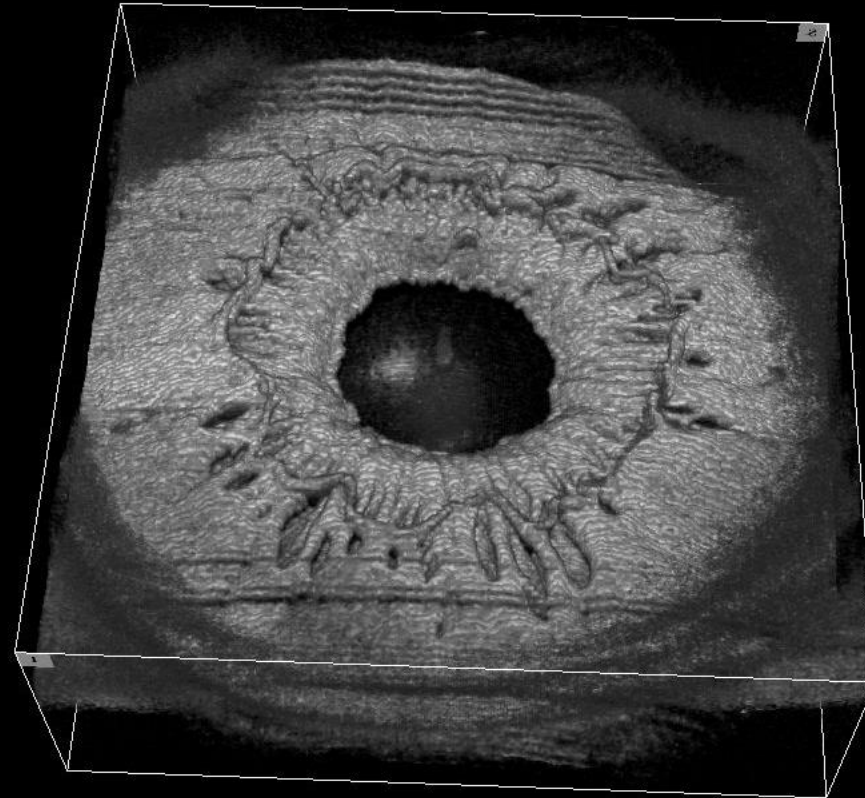


normale

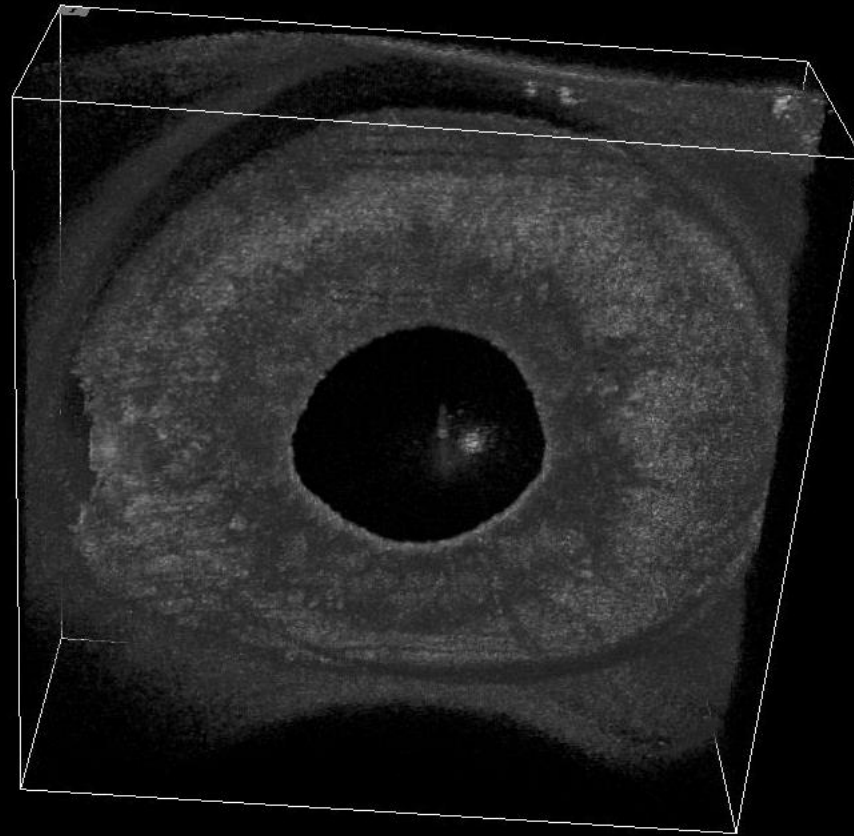
In midriasi



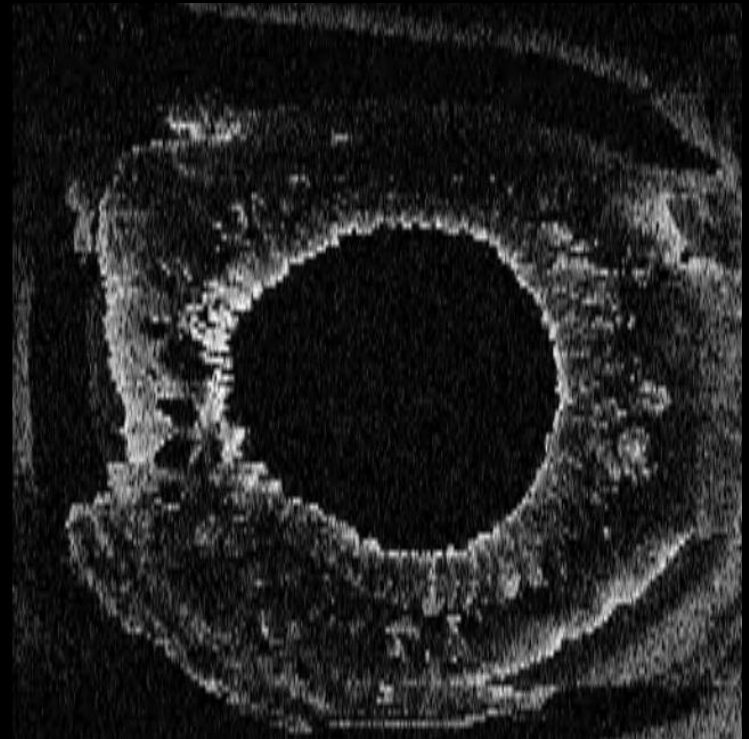
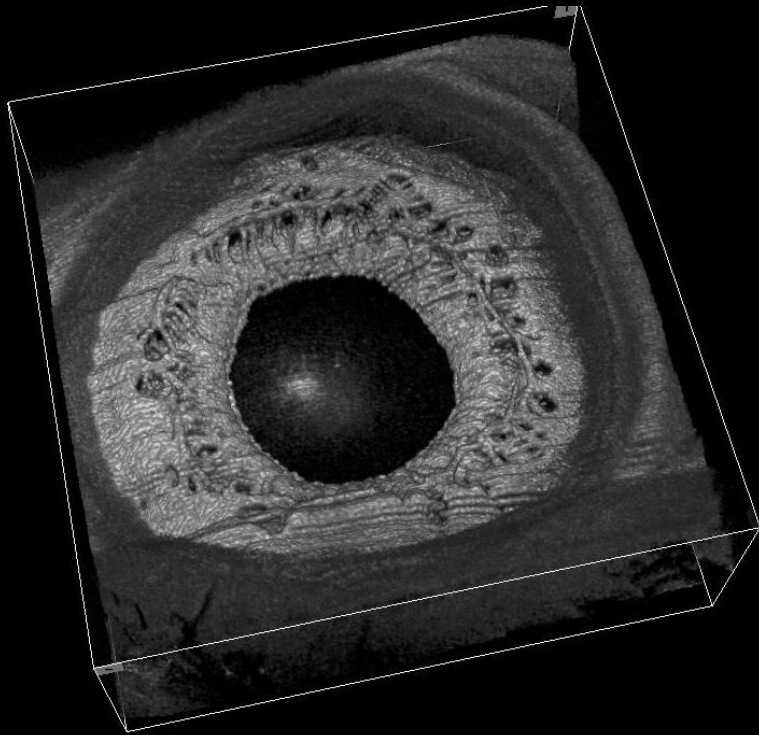
Iride 3D anteriore



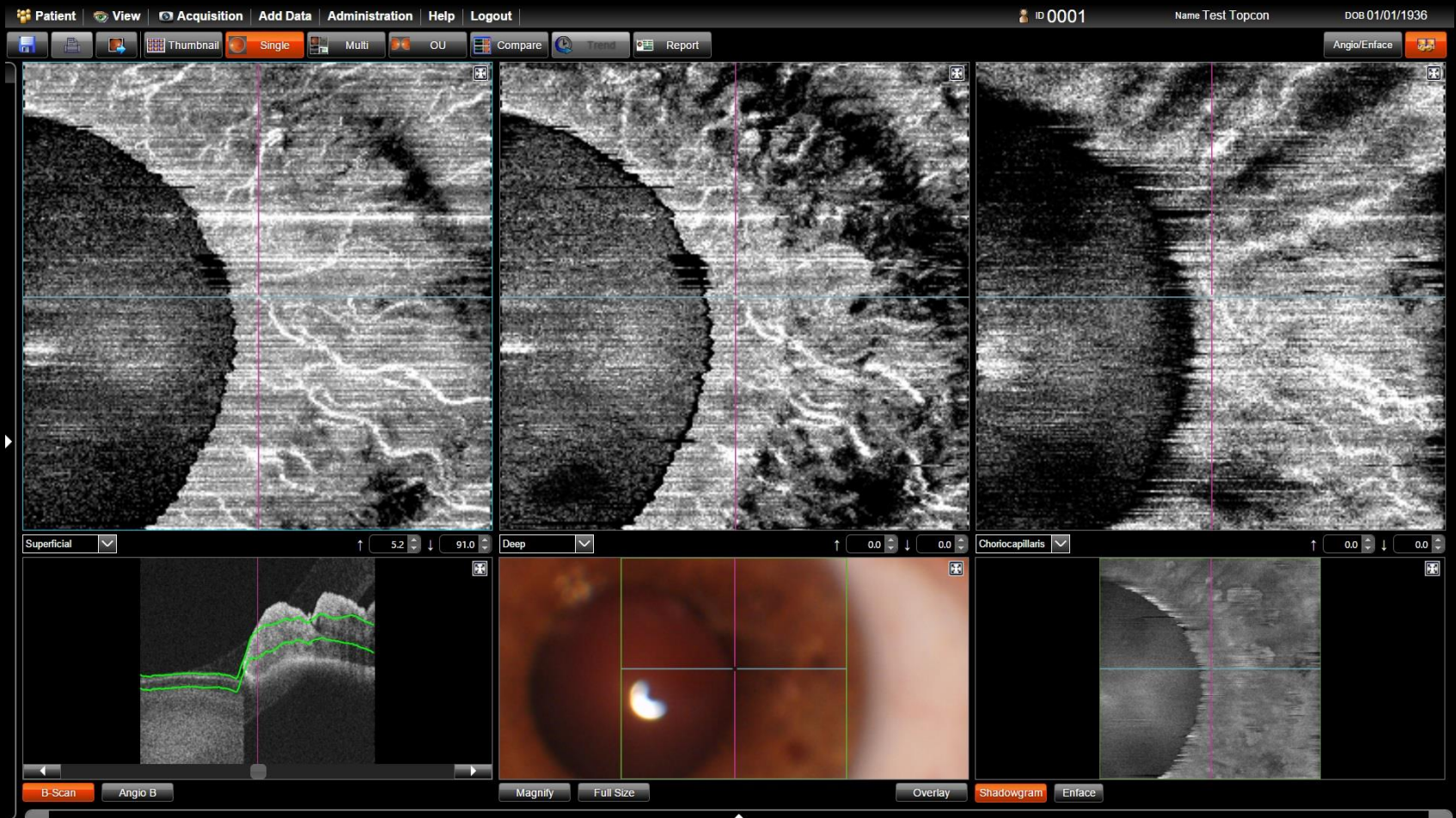
Posteriore



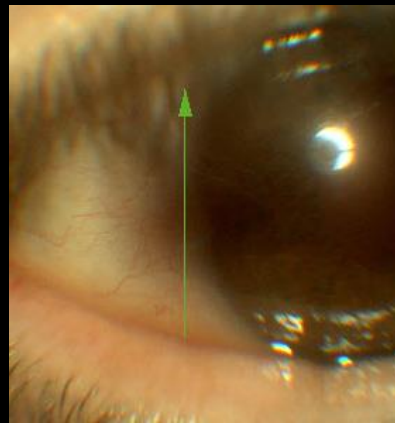
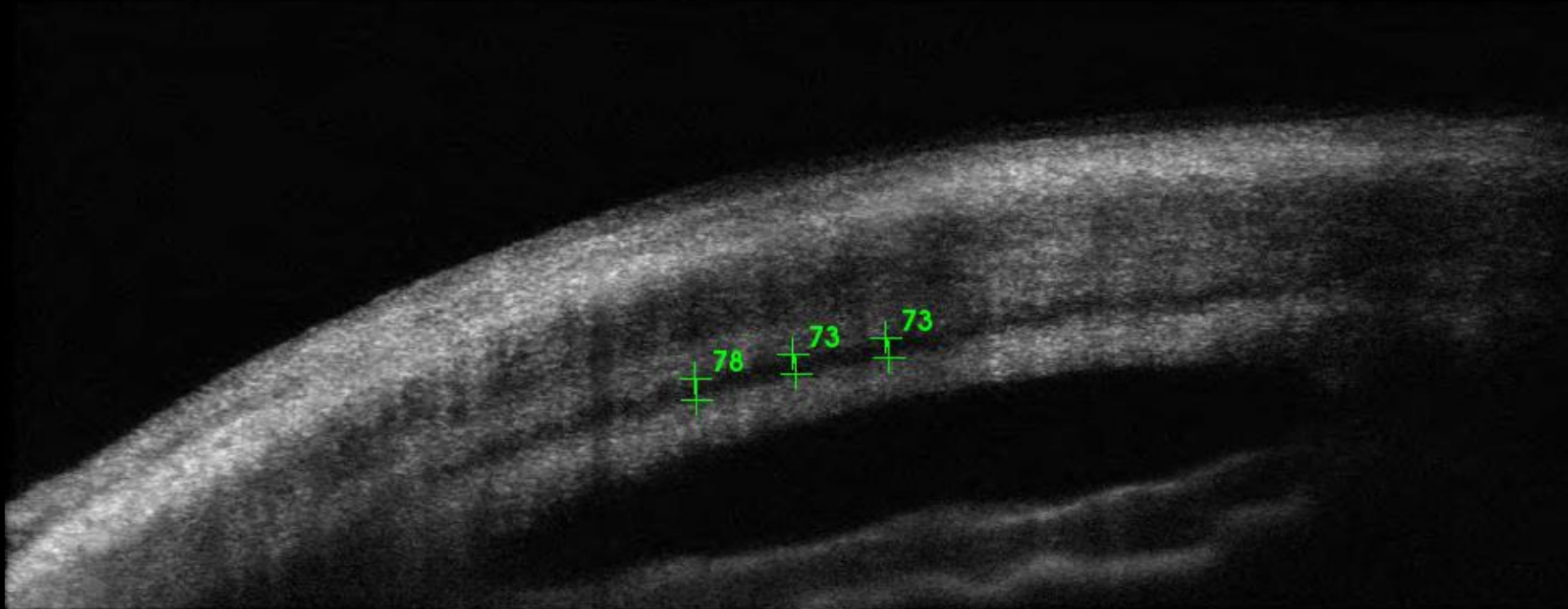
Iride 3D



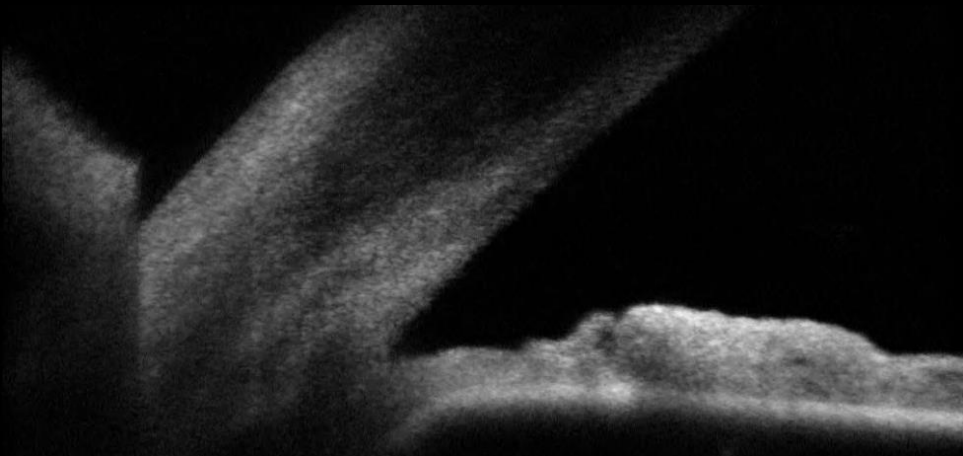
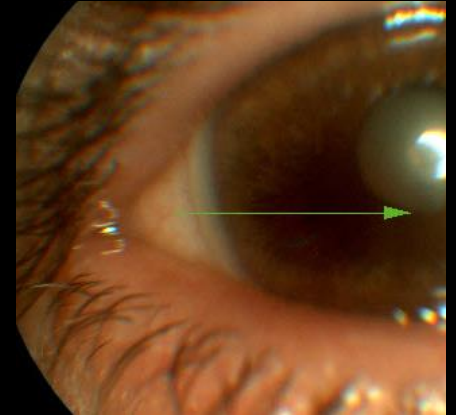
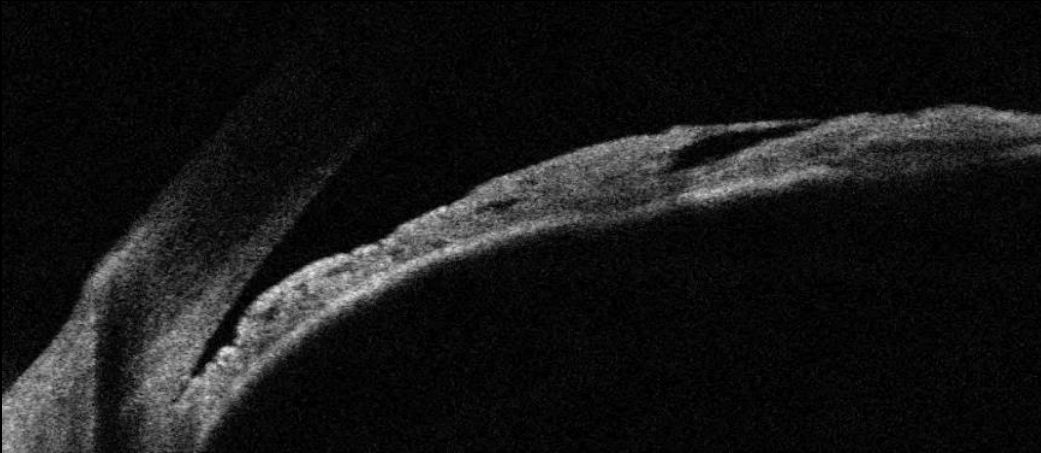
Angio OCT Iride



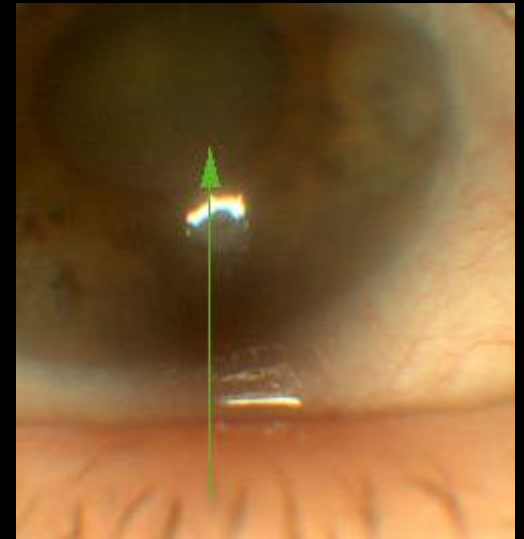
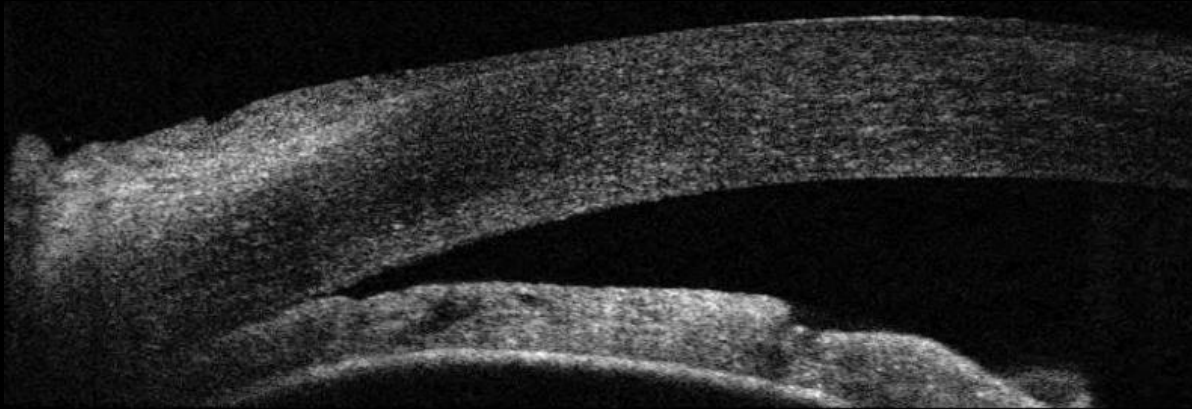
Canale di Schlemm



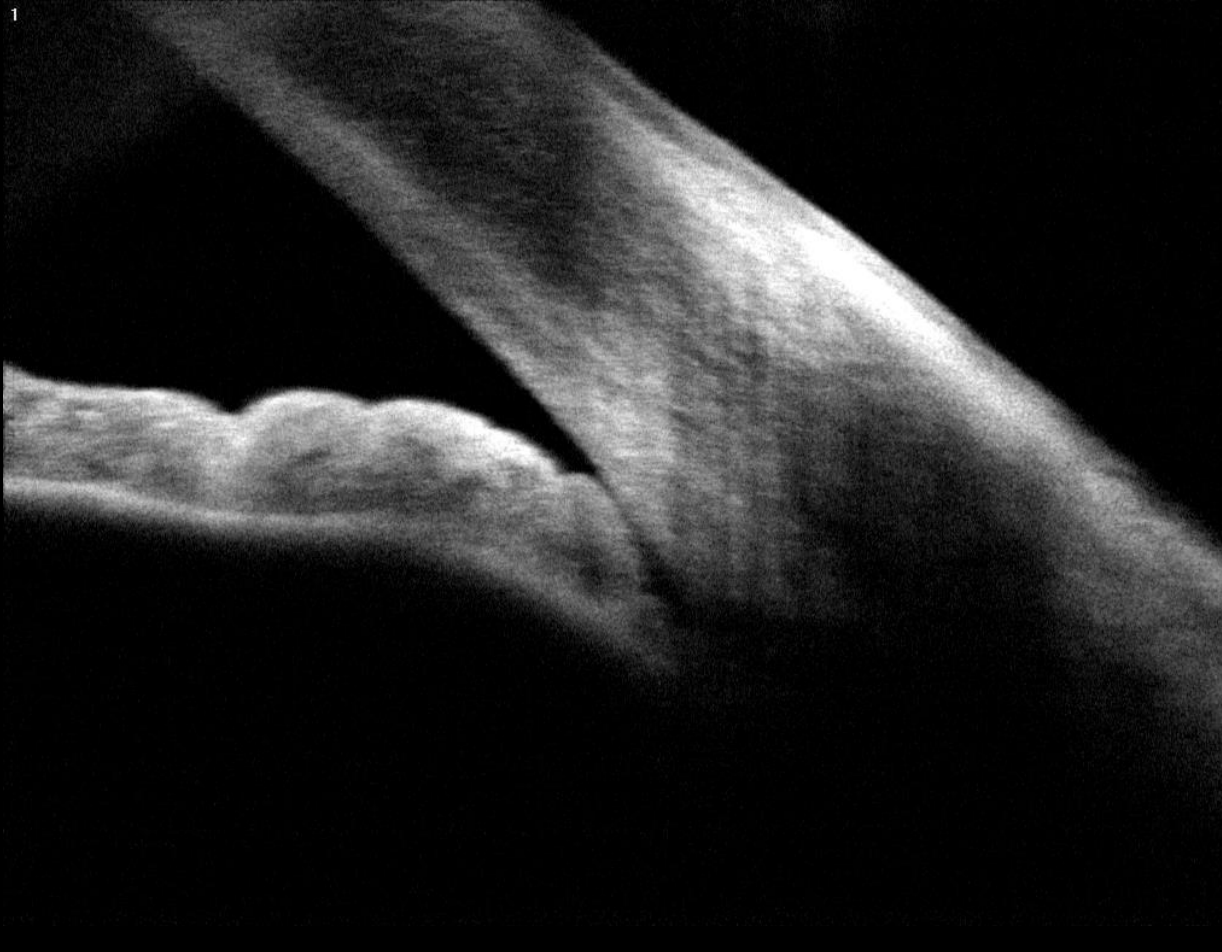
Angolo prima e dopo la cataratta



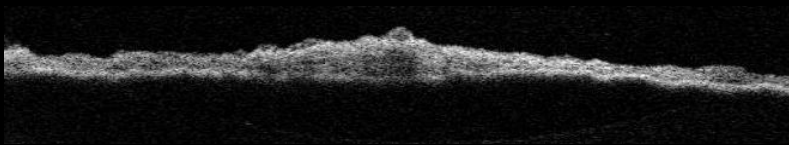
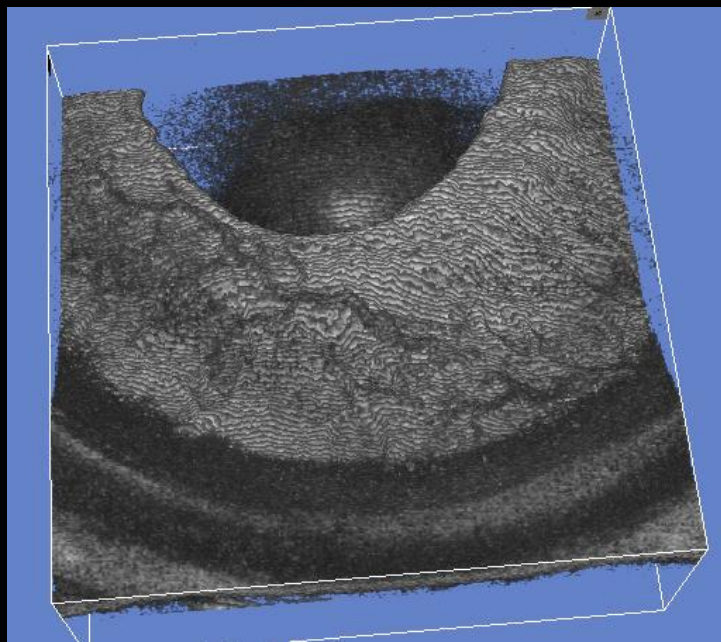
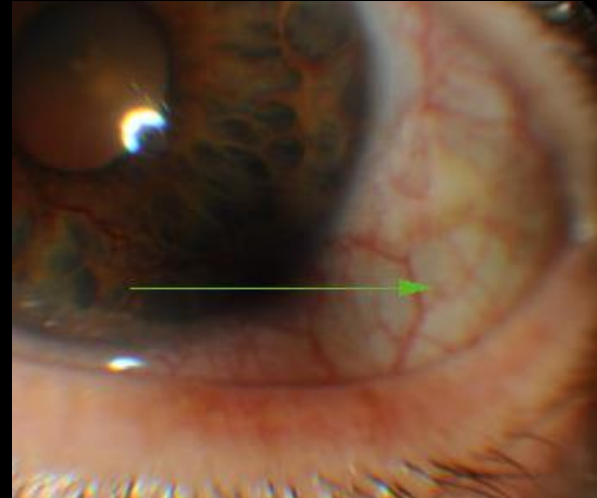
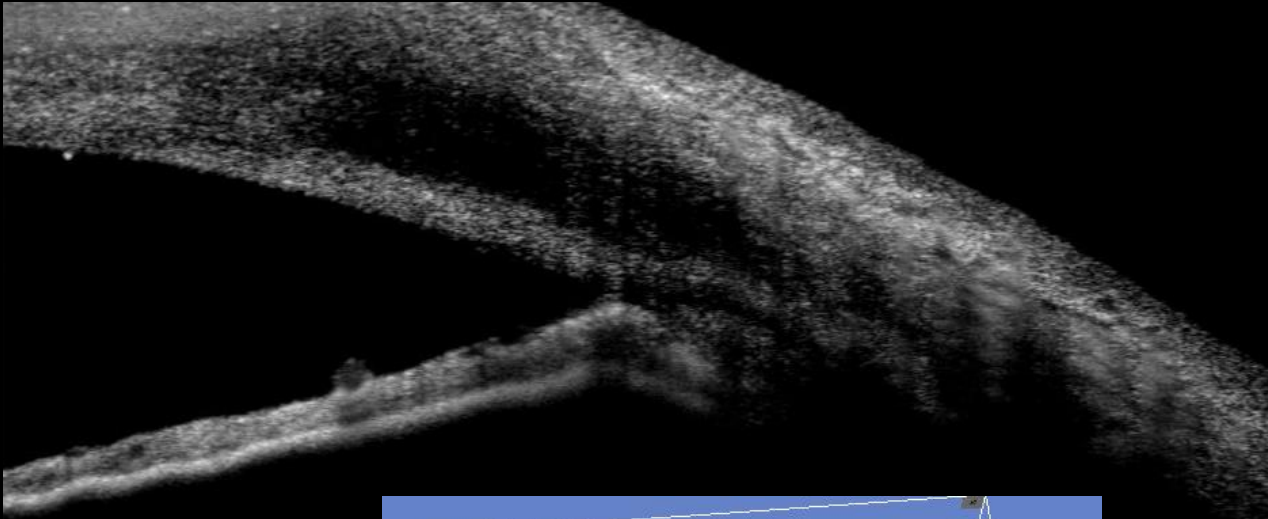
Glaucoma acuto



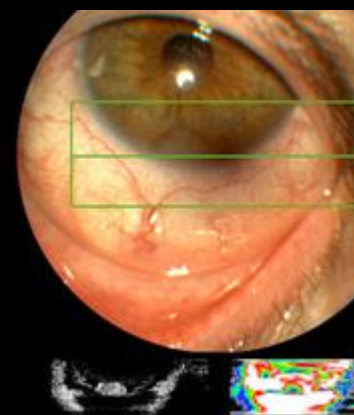
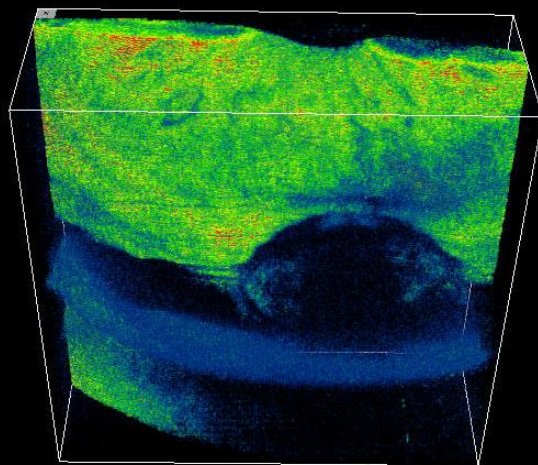
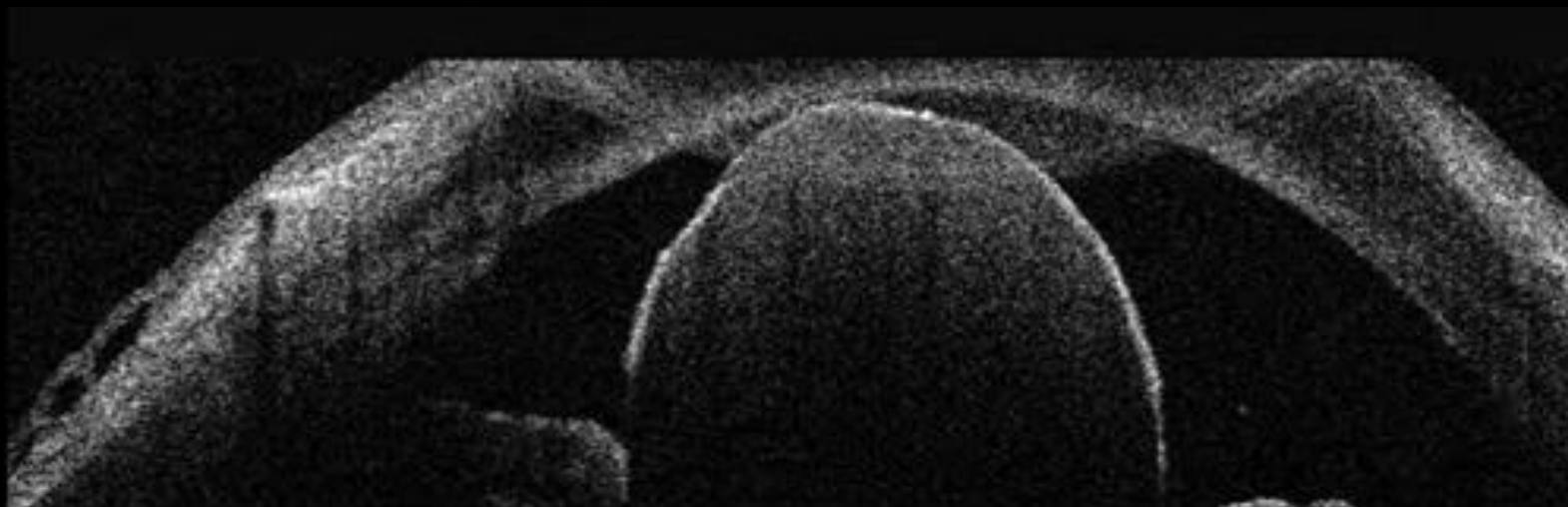
Iride a plateau



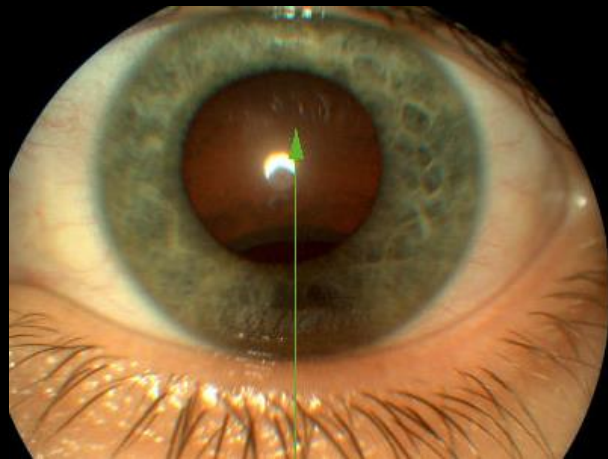
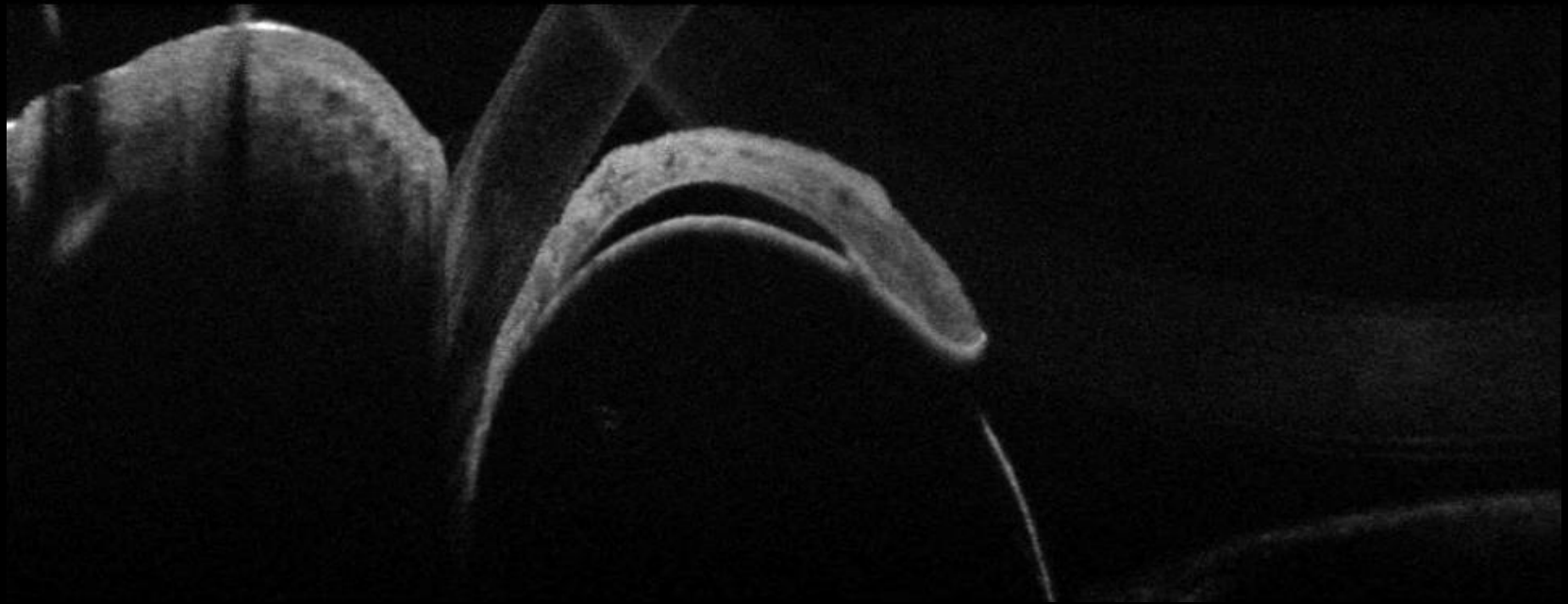
Glaucoma neovascolare



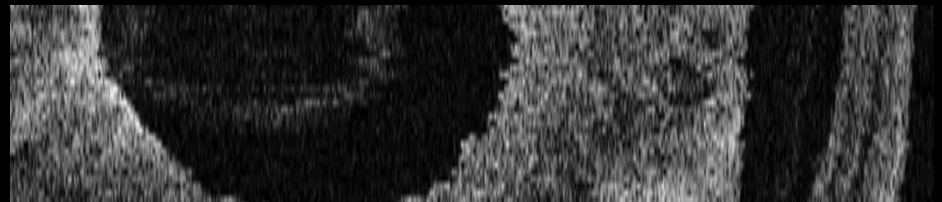
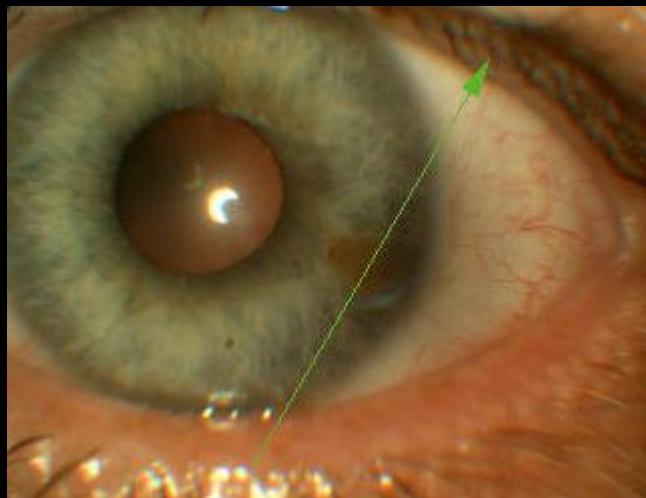
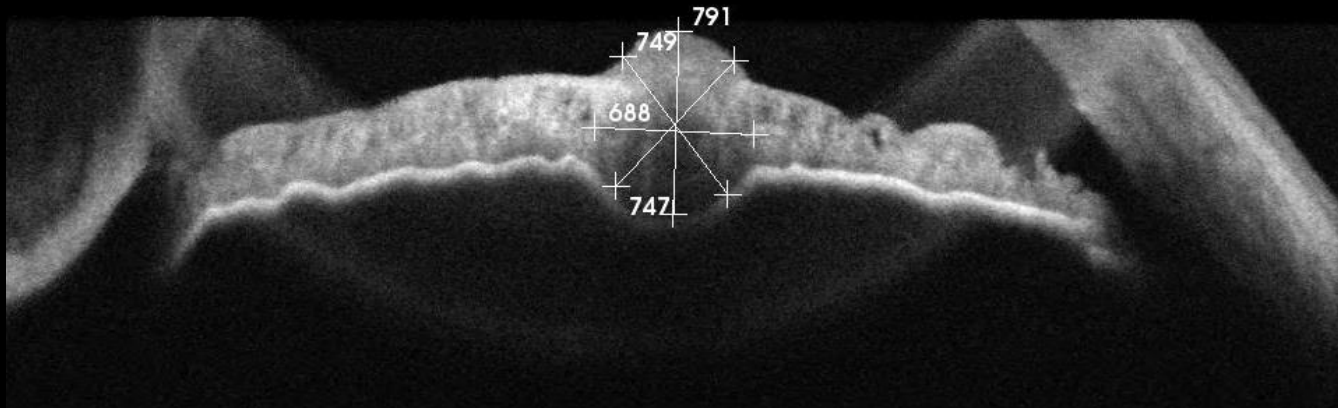
Cisti dell'iride anteriore



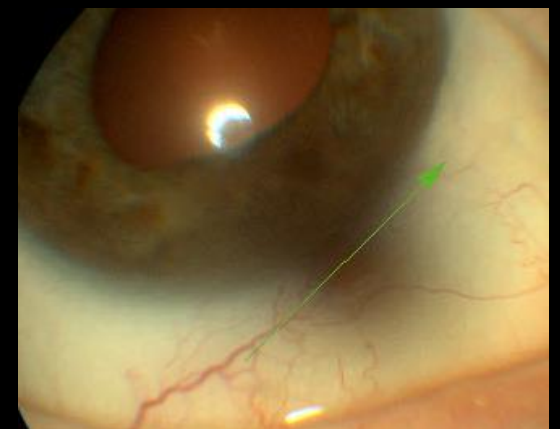
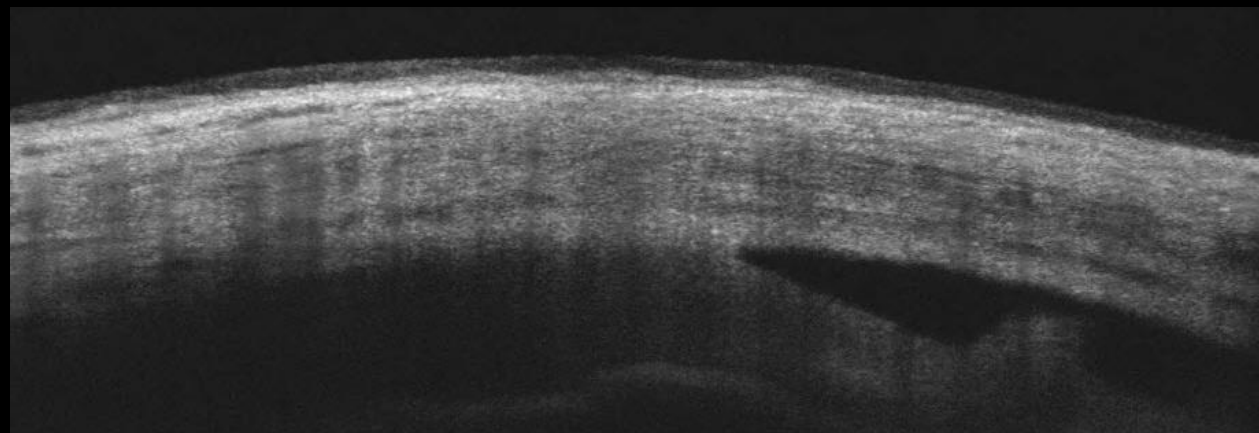
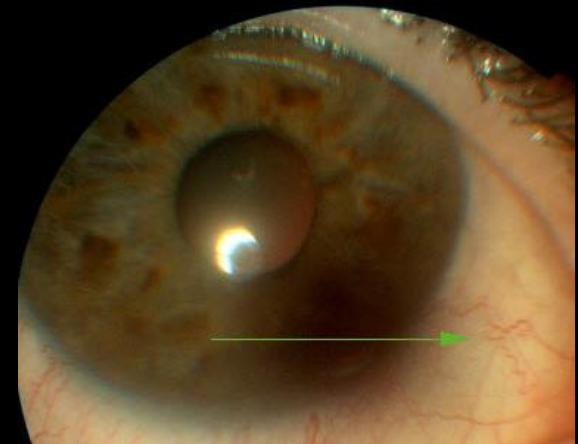
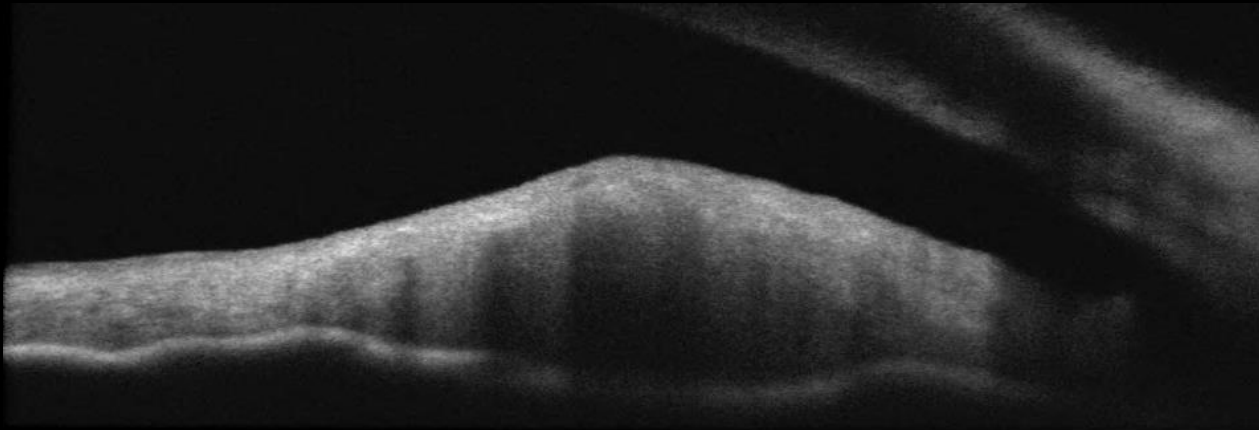
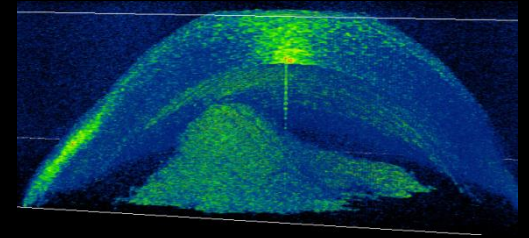
Cisti iridea posteriore



Neoformazione iridea

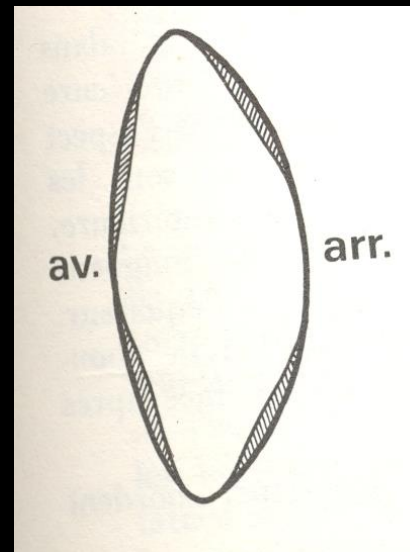
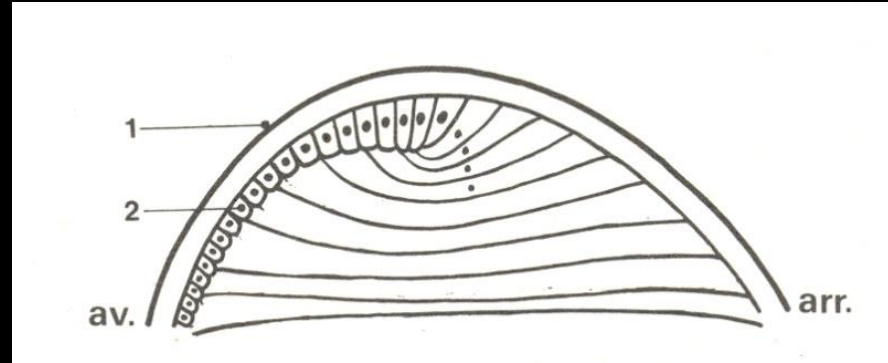


Melanoma

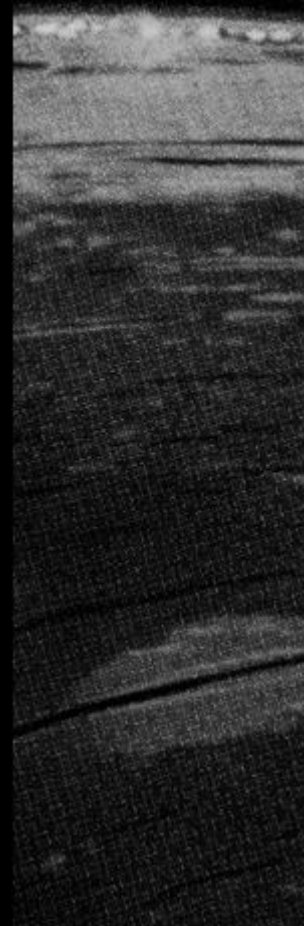


CRISTALLINO

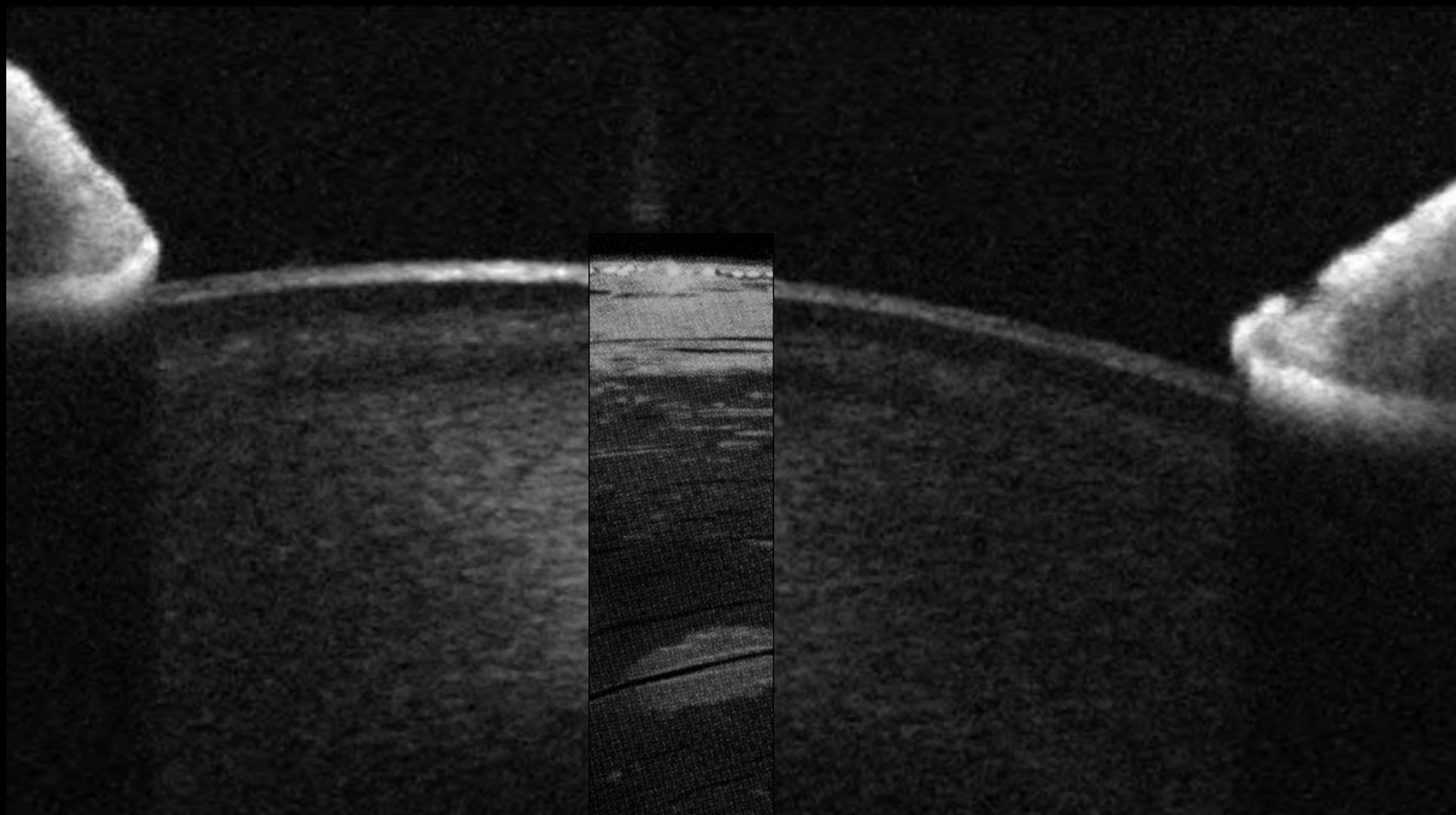
Istologia del cristallino



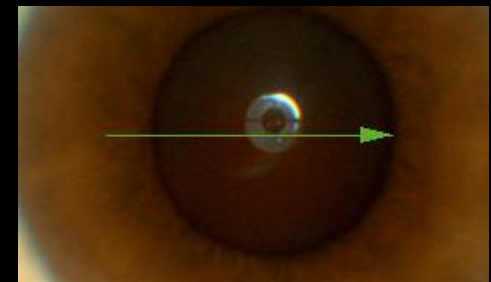
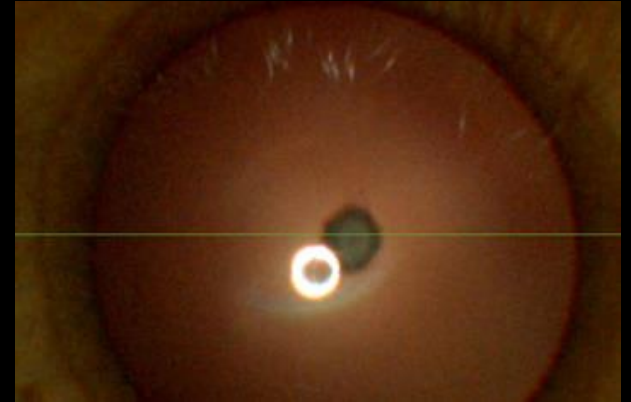
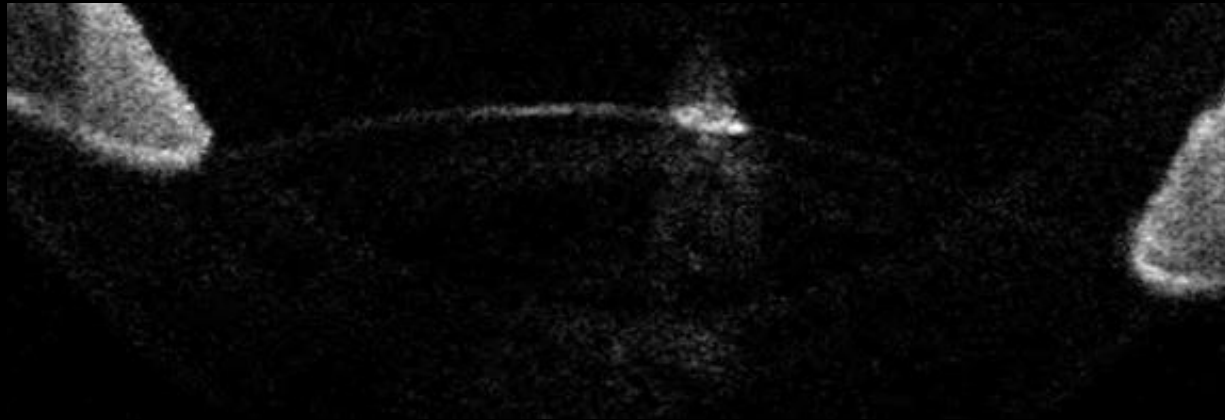
Facendo il precedente gioco



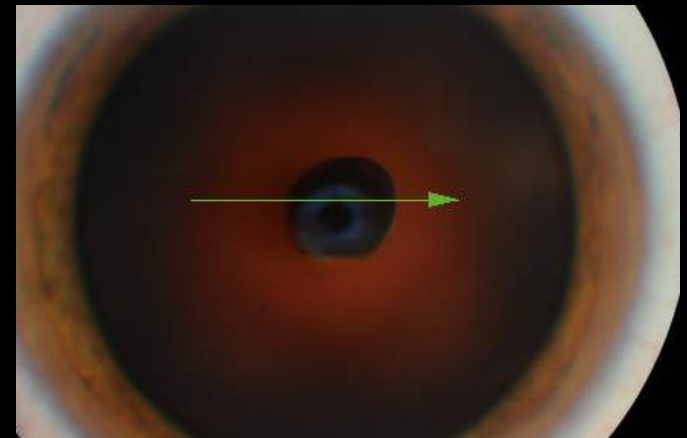
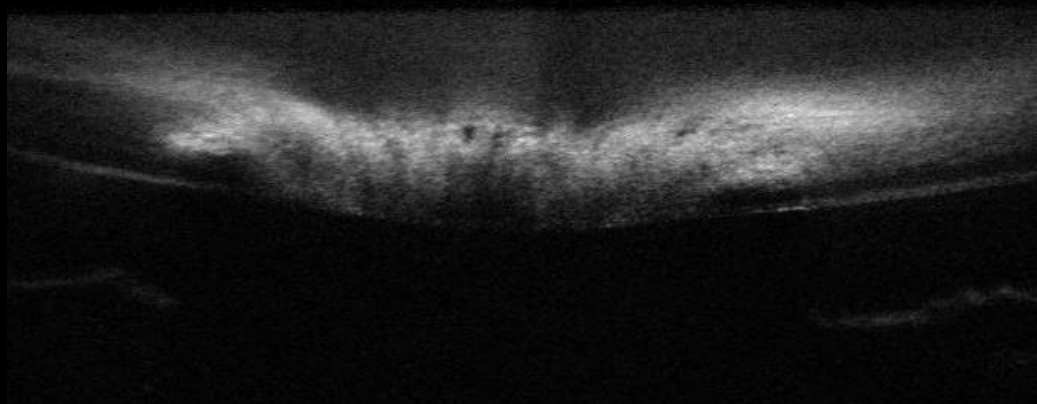
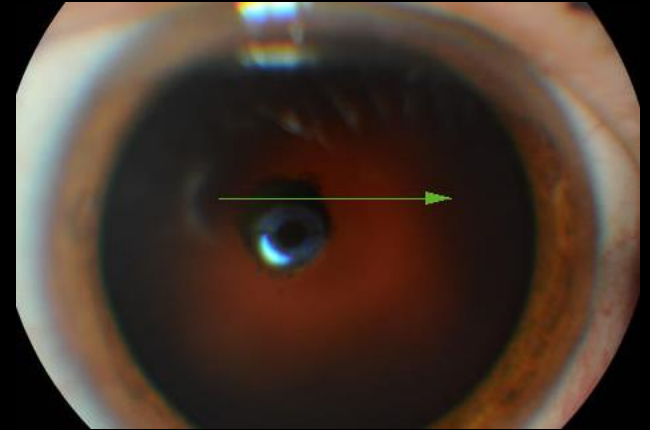
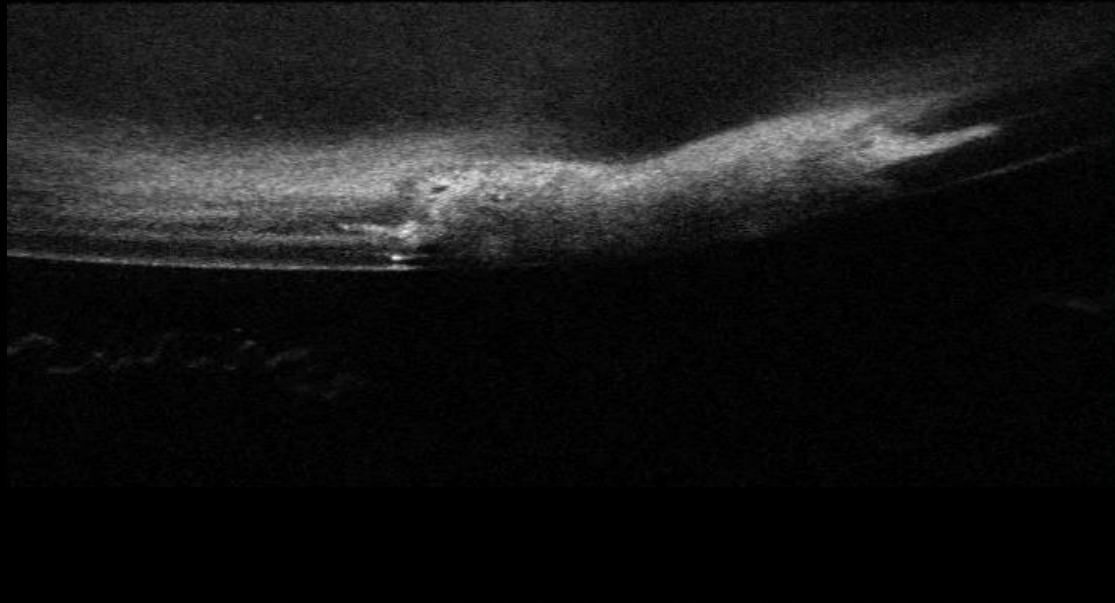
Analogie istologico - OCT



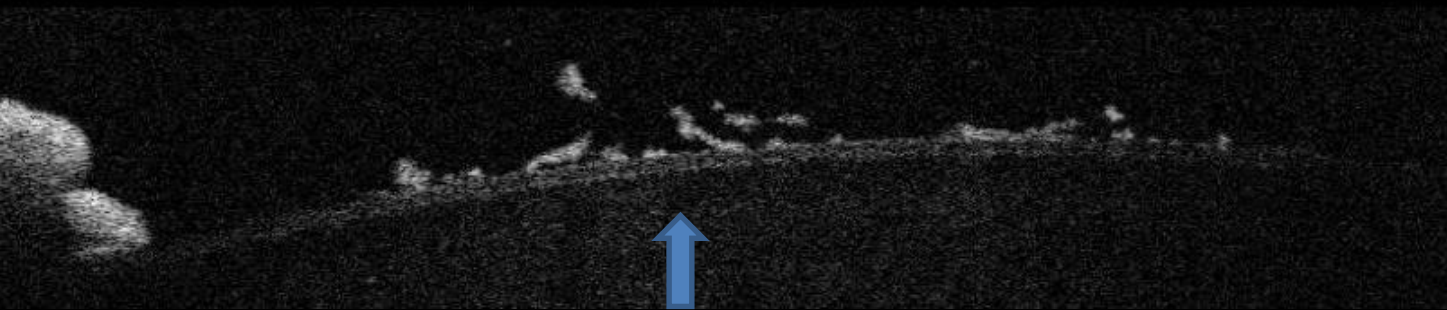
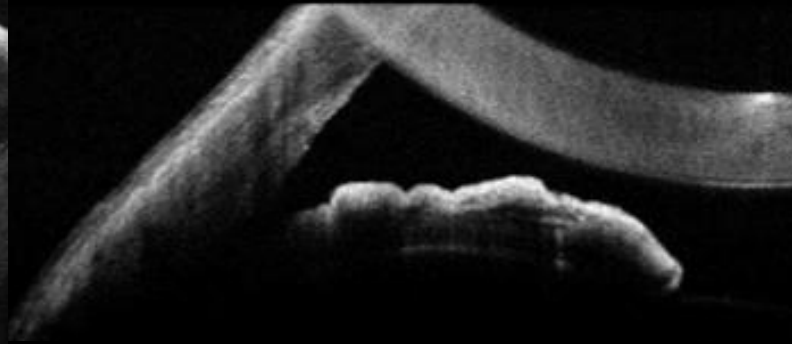
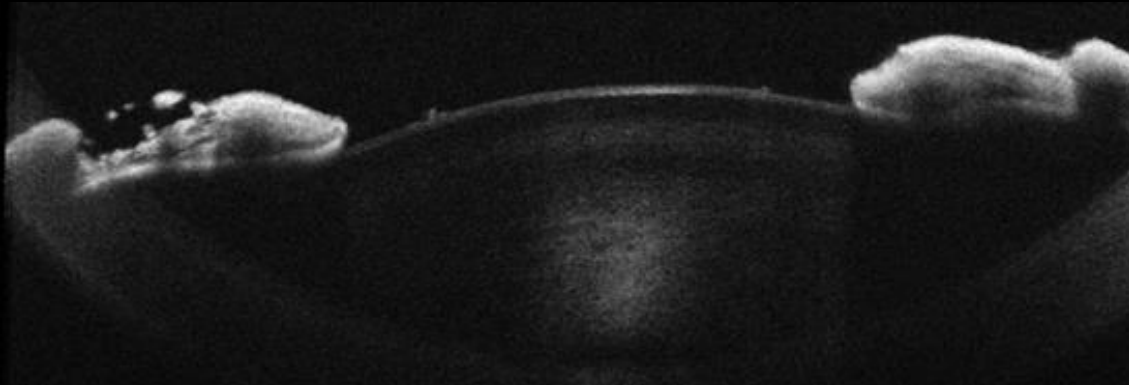
Cataratta polare anteriore



Cataratta polare posteriore



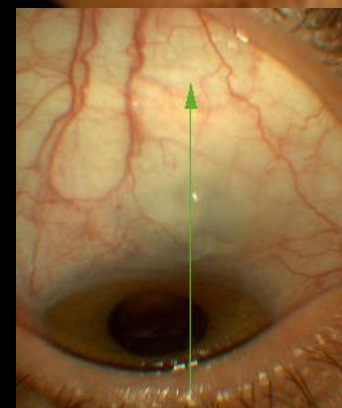
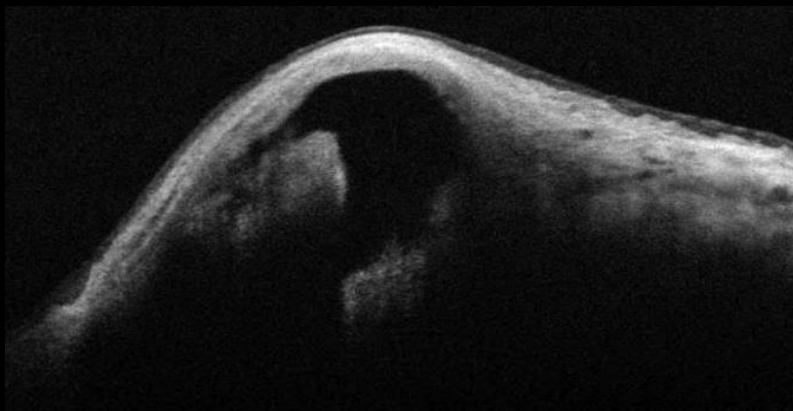
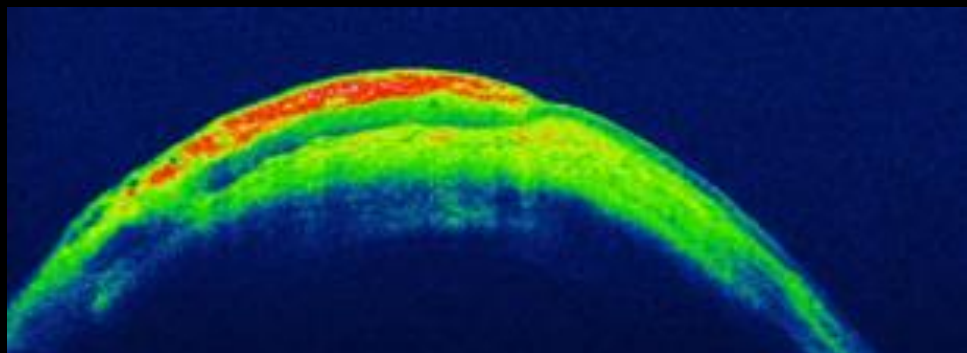
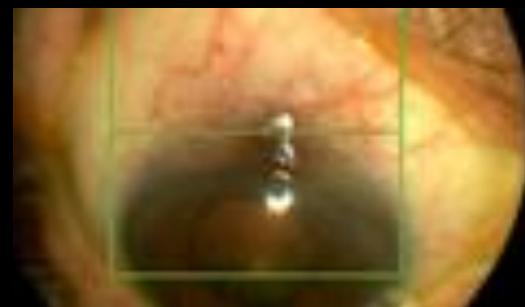
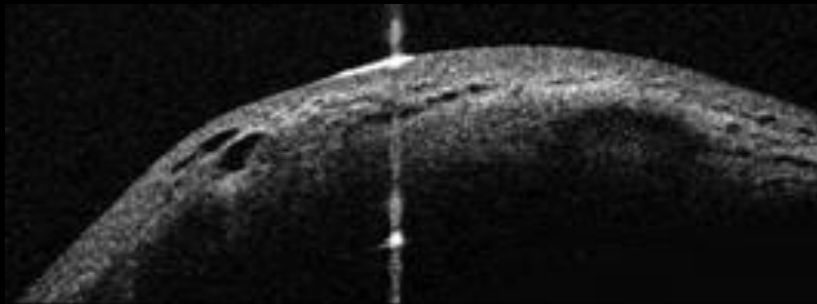
Pseudoesfoliatio



di Bertelsen



Bozza filtrante



Conclusione

- **Segmento anteriore:**
camerulare, canale di Schlemm
cristallino, congiuntiva, ricostruzioni 3D topografia
corneale, topografia pachimetrica.
- Vitreo: con ricostruzioni 3D
- **Retina:**
microperimetria, angio OCT, Flussimetria
- **Nervo ottico:** Morfologia, fibre nervose, angio
OCT, flussimetria
- **Coroide:** Angio OCT
- **Sclera**



Grazie per l'attenzione !