FONDAZIONE
BANCA DEGLI OCCHI
DEL VENETO - ONLUS

Preparazione di cornee pre-tagliate per “Thinner” DSAEK

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VI° corso SIBO
Genova 21 Aprile 2012

Premessa

- Neff KD et al. **Comparison of central corneal graft thickness to visual acuity outcomes EK.** *Cornea* 2011; 30:388–91

	A	B
Median graft thickness	≤131 µm	>131 µm
Eyes	**71 %**	**19 %**
BSCVA	**20/20**	

- Lenticoli posteriori (FBOV): 151±21 µm (n=121)

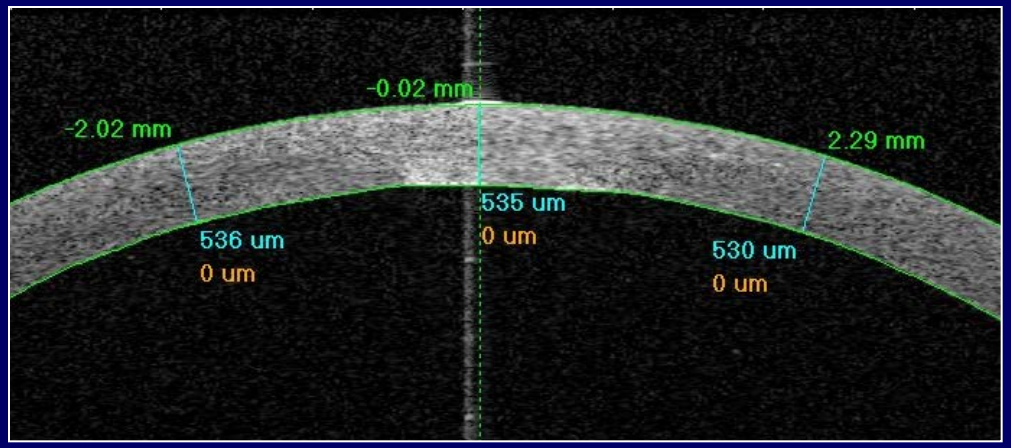
Obiettivi

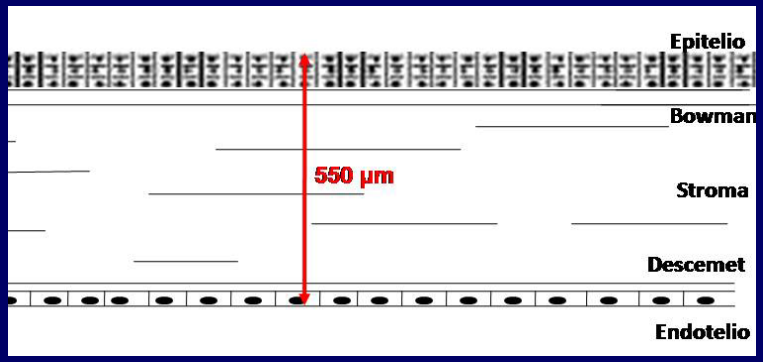
- Lenticoli posteriori più sottili:
  - ≤131µm
- Tecnica standardizzabile:
  - Riproducibile
  - Sicura

Preparazione

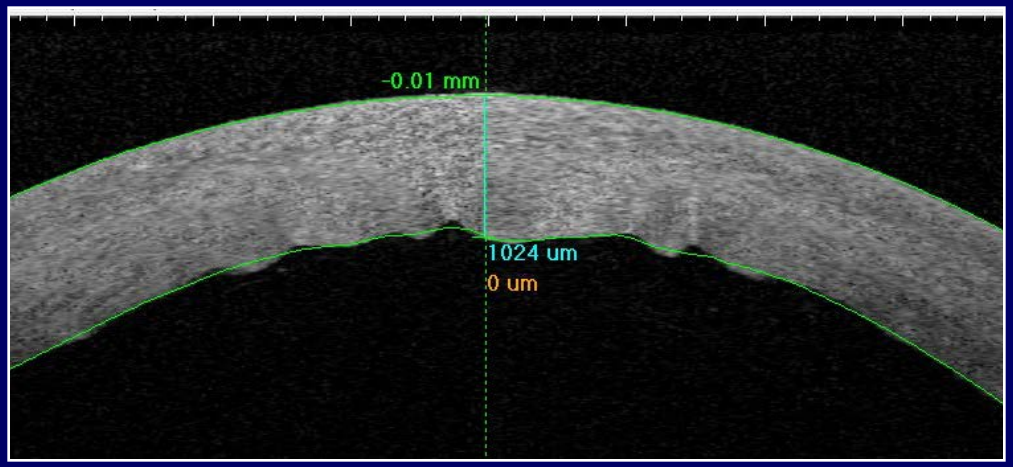
MEM + Destrano 6%

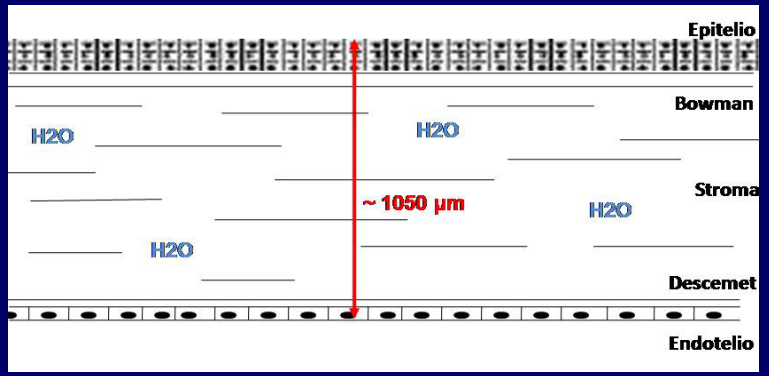
Spessore: 551,8 ± 52,1 (n=48)

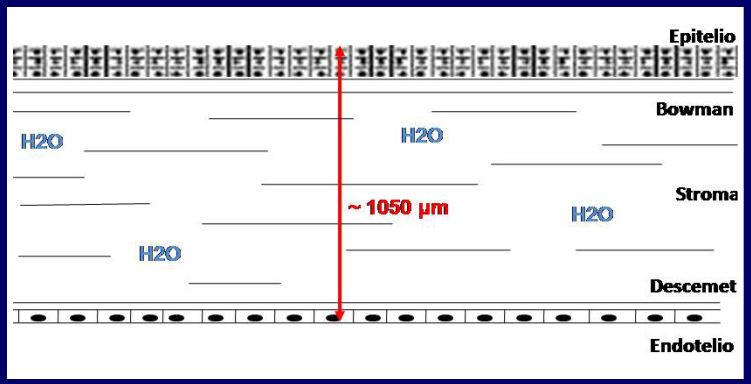


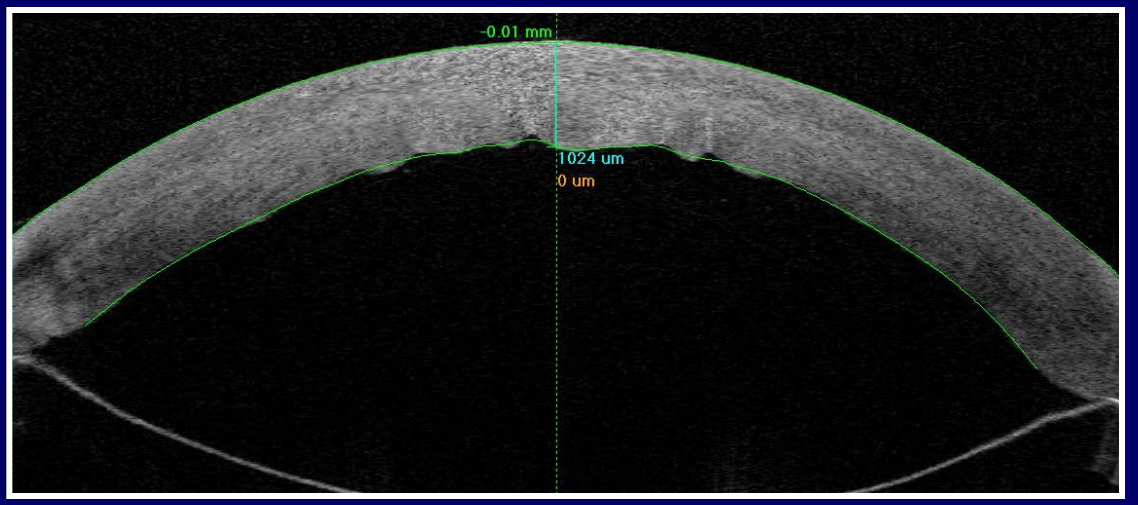


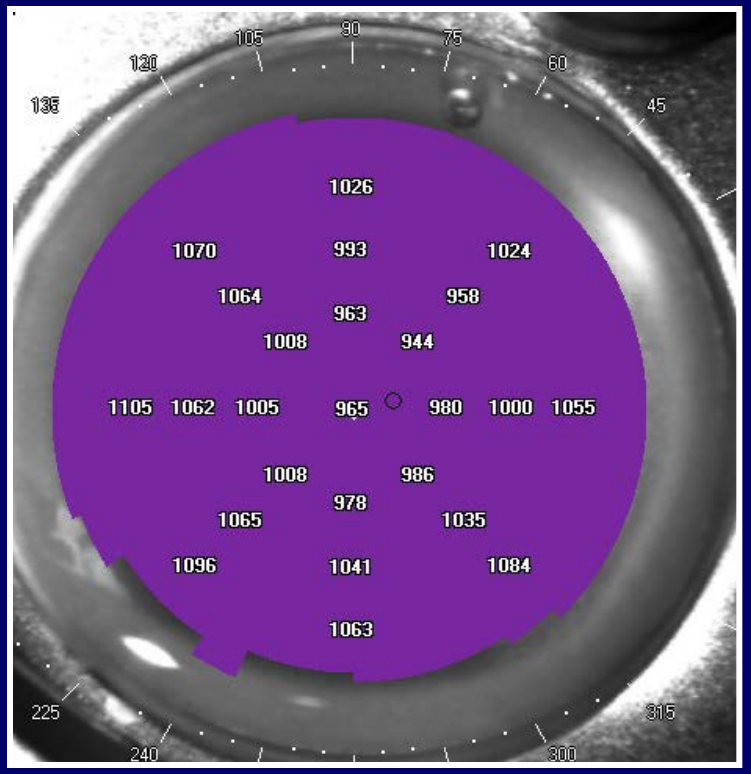
MEM (Storage medium)











Spessore INIZIALE	
Senza Epitelio	980 ± 120 µm

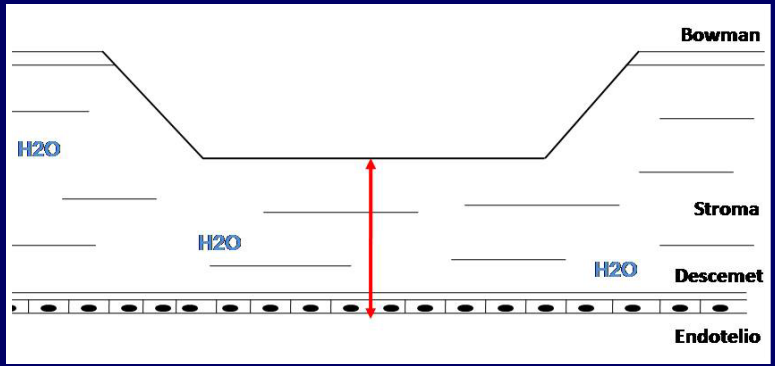
Combinazioni di testine

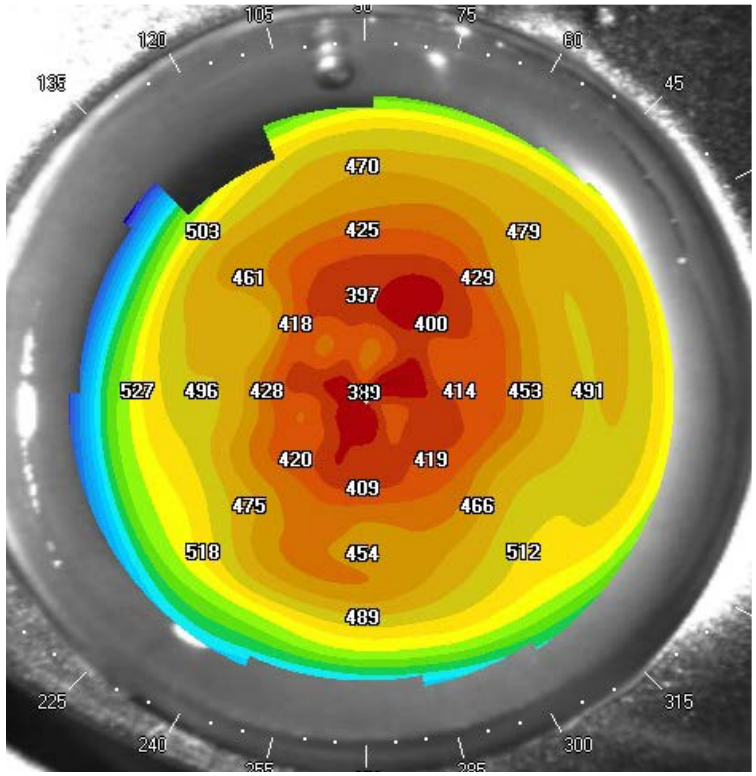
1°taglio	2°taglio
300	300
350	200
200	130

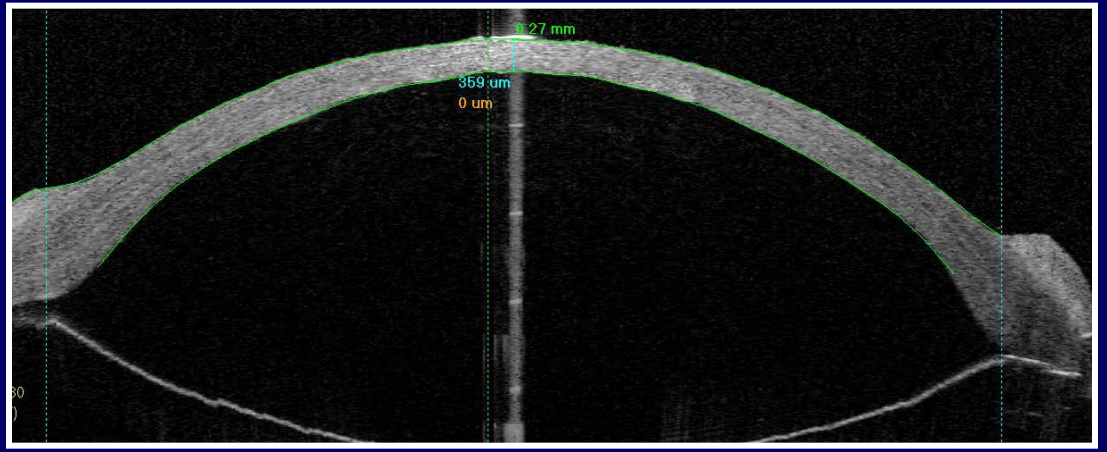
Variabili:

- Pressione
- Velocità del taglio

1° TAGLIO

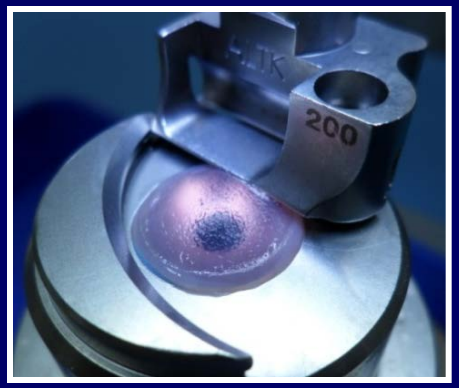


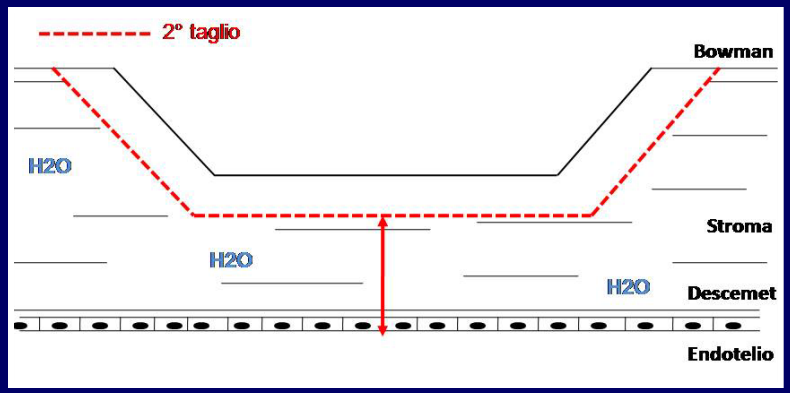


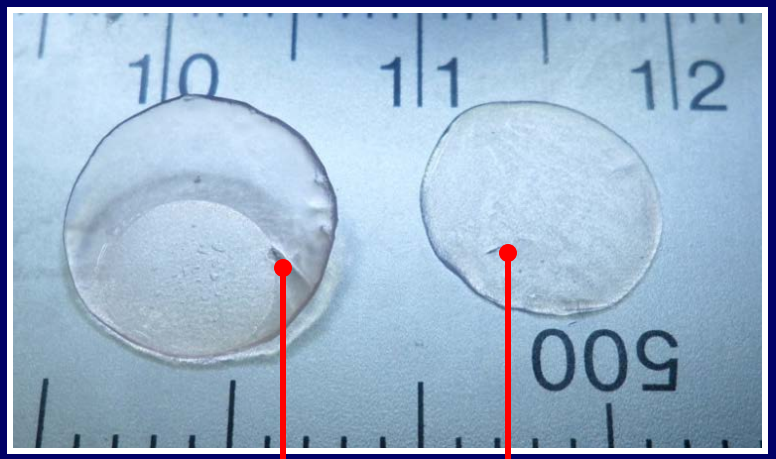


Testine	300	350
Stroma asportato (µm)	386±10	466±19

2° TAGLIO

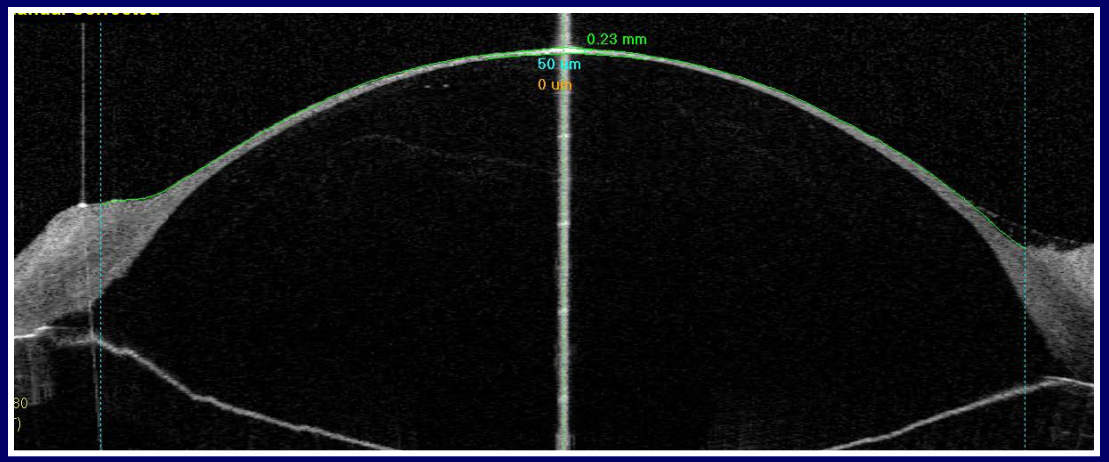






1° Lenticolo

2° Lenticolo



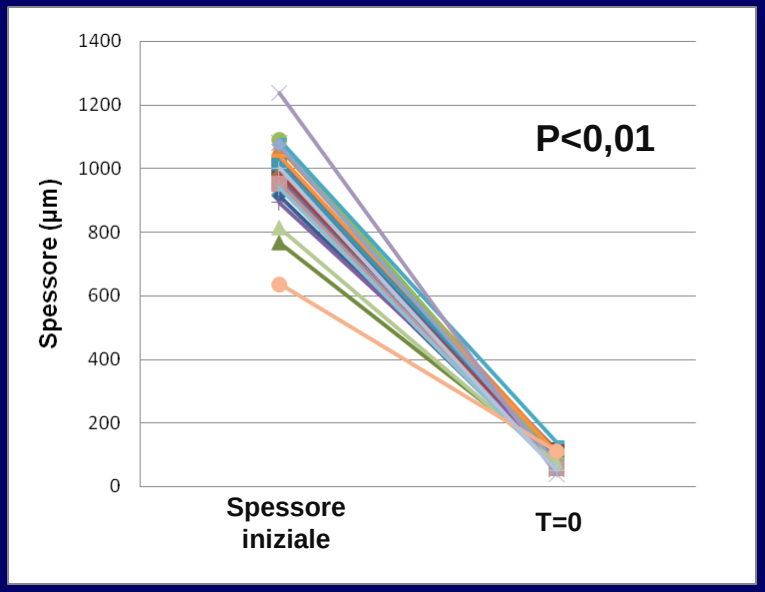
Testine	130	200
Stroma asportato (µm)	207±18	261±13

Risultati

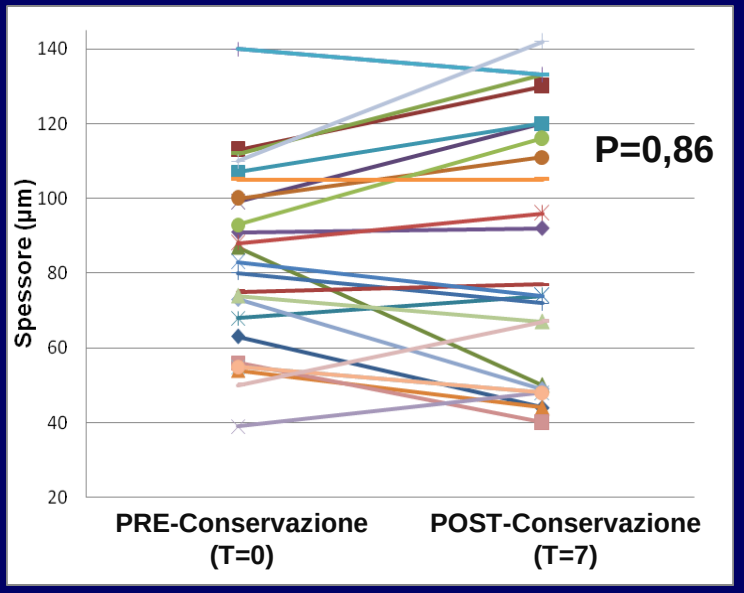
Spessore

n=25	Spessore iniziale (µm)	Spessore dopo 1°taglio (µm)	Spessore lenticoli **Posteriori** (µm) **OCT**
			T=0
media±SD	980±120	446±94	84±24
Mediana (min-max)	998 (637-1237)	435 (333-586)	85 (39-140)

OCT: optical coherence tomography



Conservazione in MEM + 6% Destrano

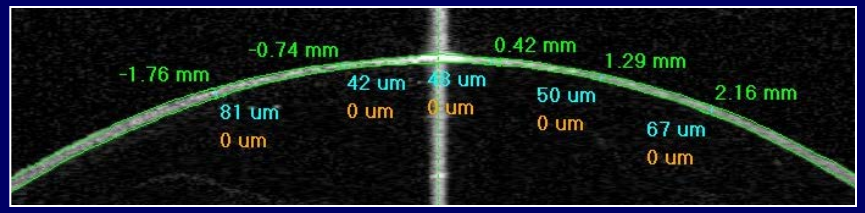


Risultati

Spessore

PRE conservazione (T=0)

POST conservazione (T=7)



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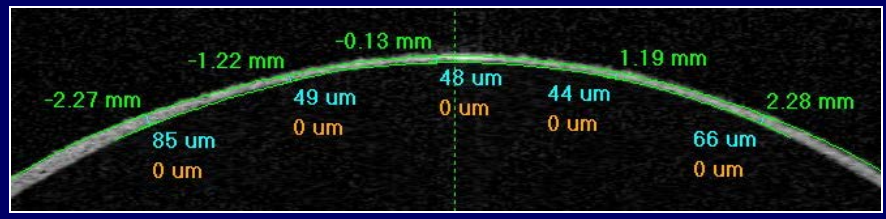

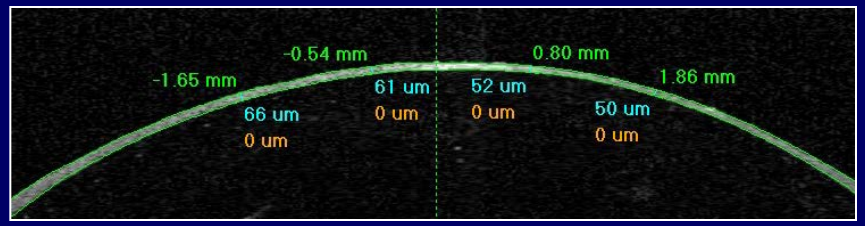

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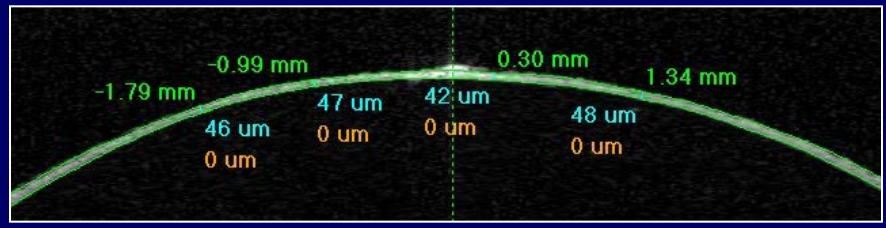

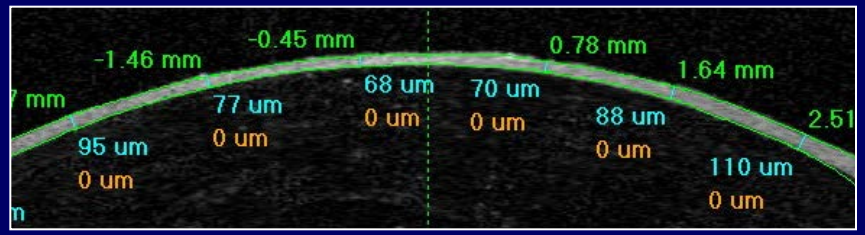

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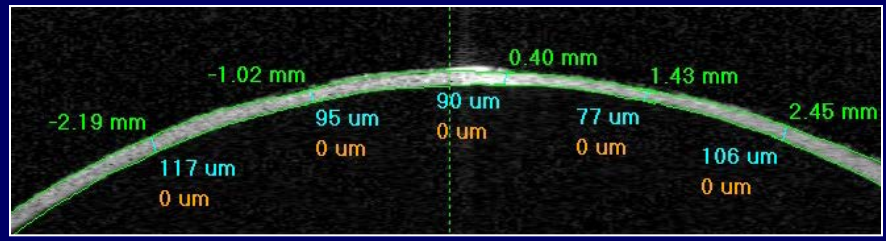

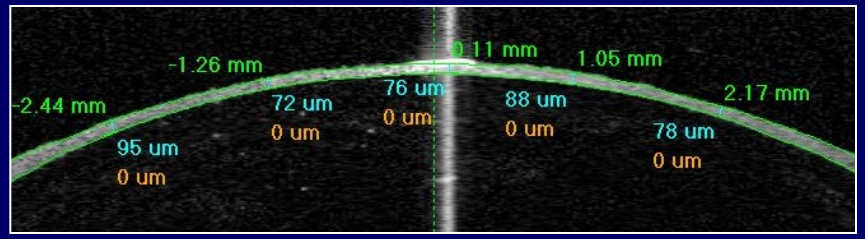

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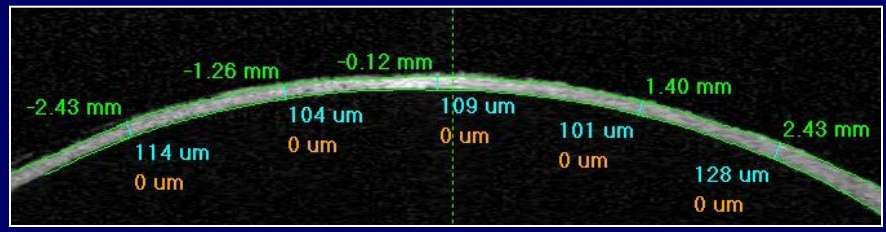


Risultati

Endotelio

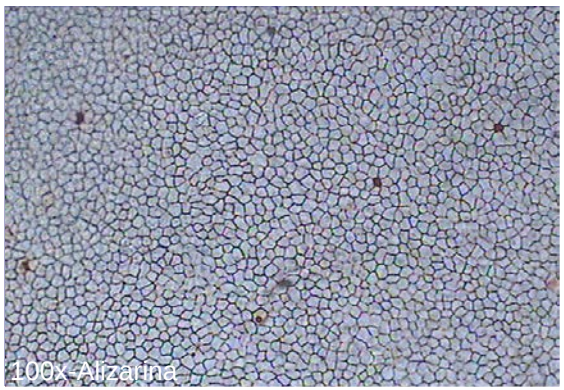
PRE-cut	
Densità (cell/mm²)	Mortalità (%)
2112±360	0

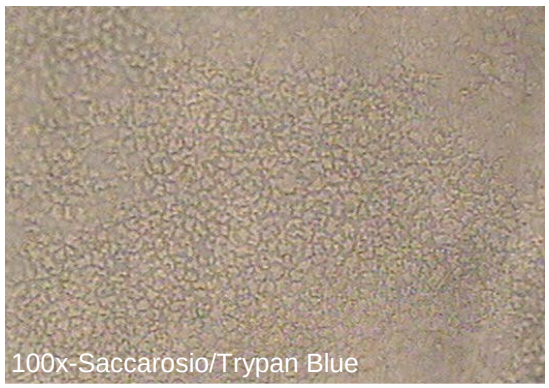
POST-cut	
Densità (cell/mm²)	Mortalità (%)
2112±360	0,4±1,1

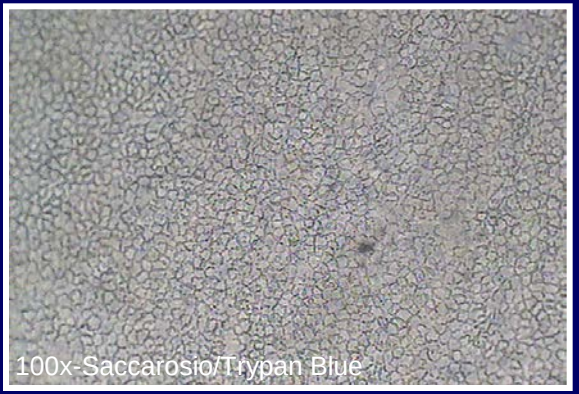
Dopo 7 giorni	
Densità (cell/mm²)	Mortalità (%)
1991±349	0
- 5,7 %	

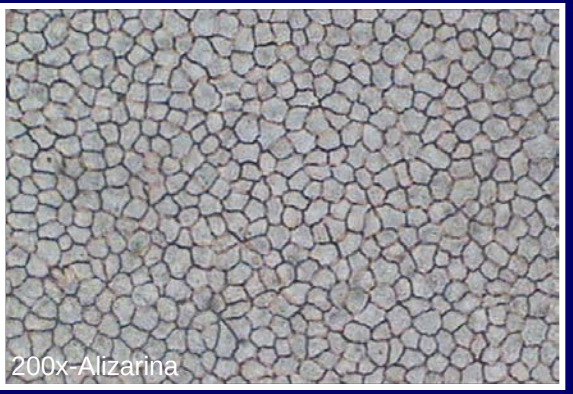

50x-Saccarosio/Trypan Blue


100x-Saccarosio/Trypan Blue


100x-Alizarina


100x-Saccarosio/Trypan Blue


100x-Saccarosio/Trypan Blue


200x-Alizarina

Conclusioni

- Preparazione standardizzabile
- Assenza di perforazioni
- Minima perdita endoteliale (-6%)
- Spessore lenticoli posteriori
  - ≤ 131 µm (96%) = 85 ± 34 µm