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Sezione di Oftalmologia
Responsabile: Prof. Salvatore Cillino

Glaucoma refrattario: trabeculectomia con Ologen VS impianto di valvola di Ahmed. Analisi endoteliale

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SOSi
Società Oftalmologica Siciliana

Campofelice di Roccella, 14-16 aprile 2016

Lo studio

- Valutazione retrospettiva comparativa di casi di glaucoma refrattario sottoposti a trabeculectomia con inserto di matrice di collegane biodegradabile o ad impianto di valvola di Ahmed dal 2011 al 2014

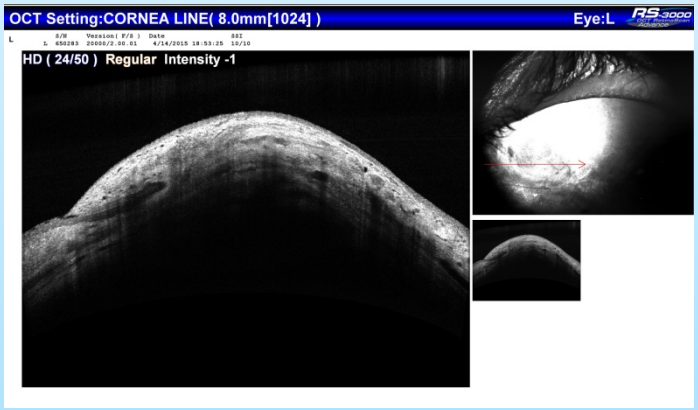
- 21 pazienti: 11 trabeculectomia con Ologen®
  10 impianto di valvola di Ahmed

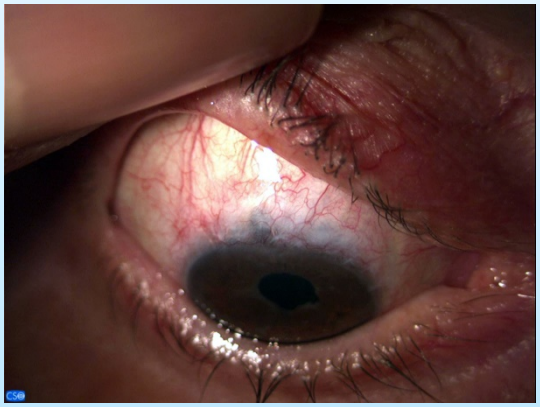
Outcomes

- Controllo dell'IOP all'endpoint: successo (con o senza farmaci) definito come IOP < 21 mmHg, con almeno il 25% di riduzione rispetto al preoperatorio
- Numero di farmaci
- Analisi dell'endotelio, con confronto con il preoperatorio
- Complicanze

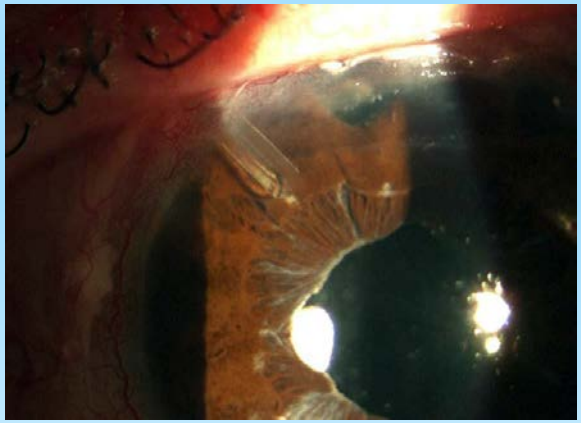
Follow up

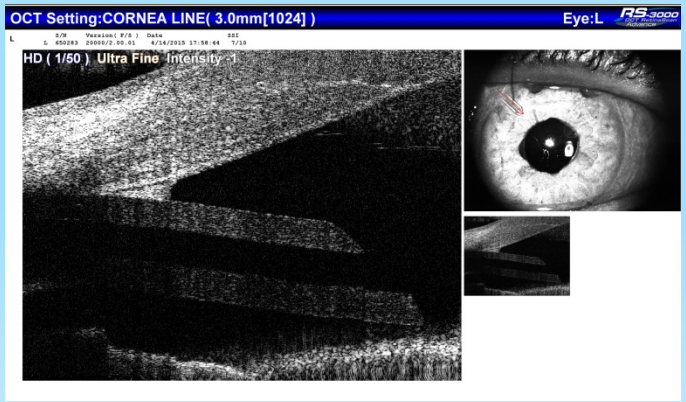
- 31.0 (13.6) mesi nel Gruppo OLO

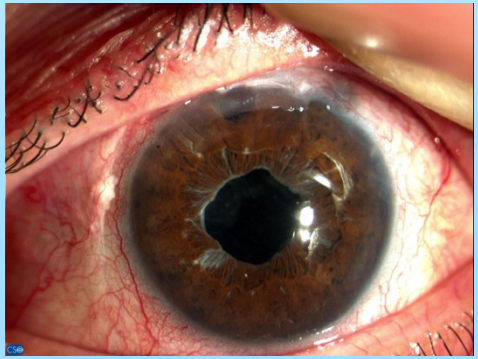




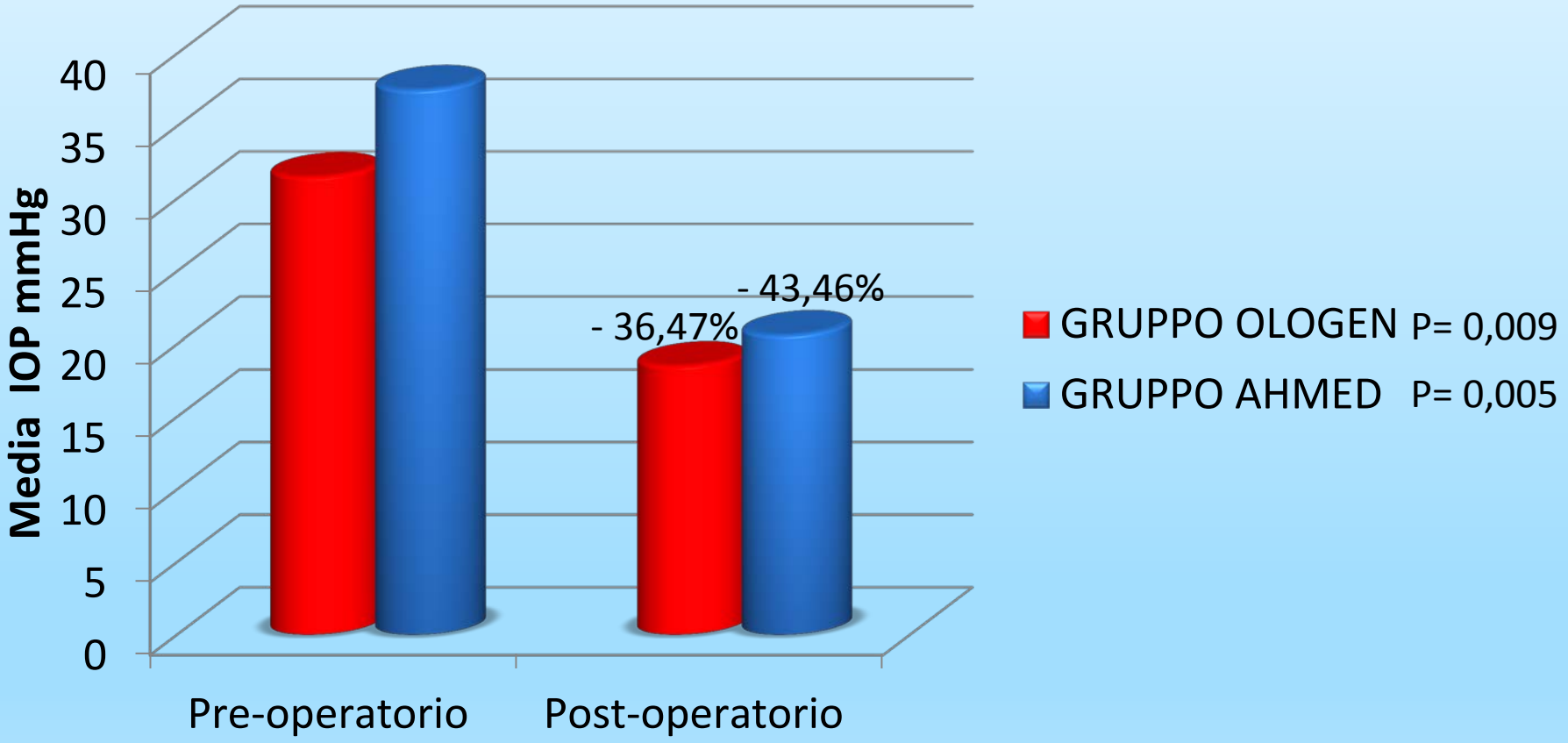
- 24.2 (14.9) mesi nel Gruppo Ahmed







End point (1): IOP MEDIA

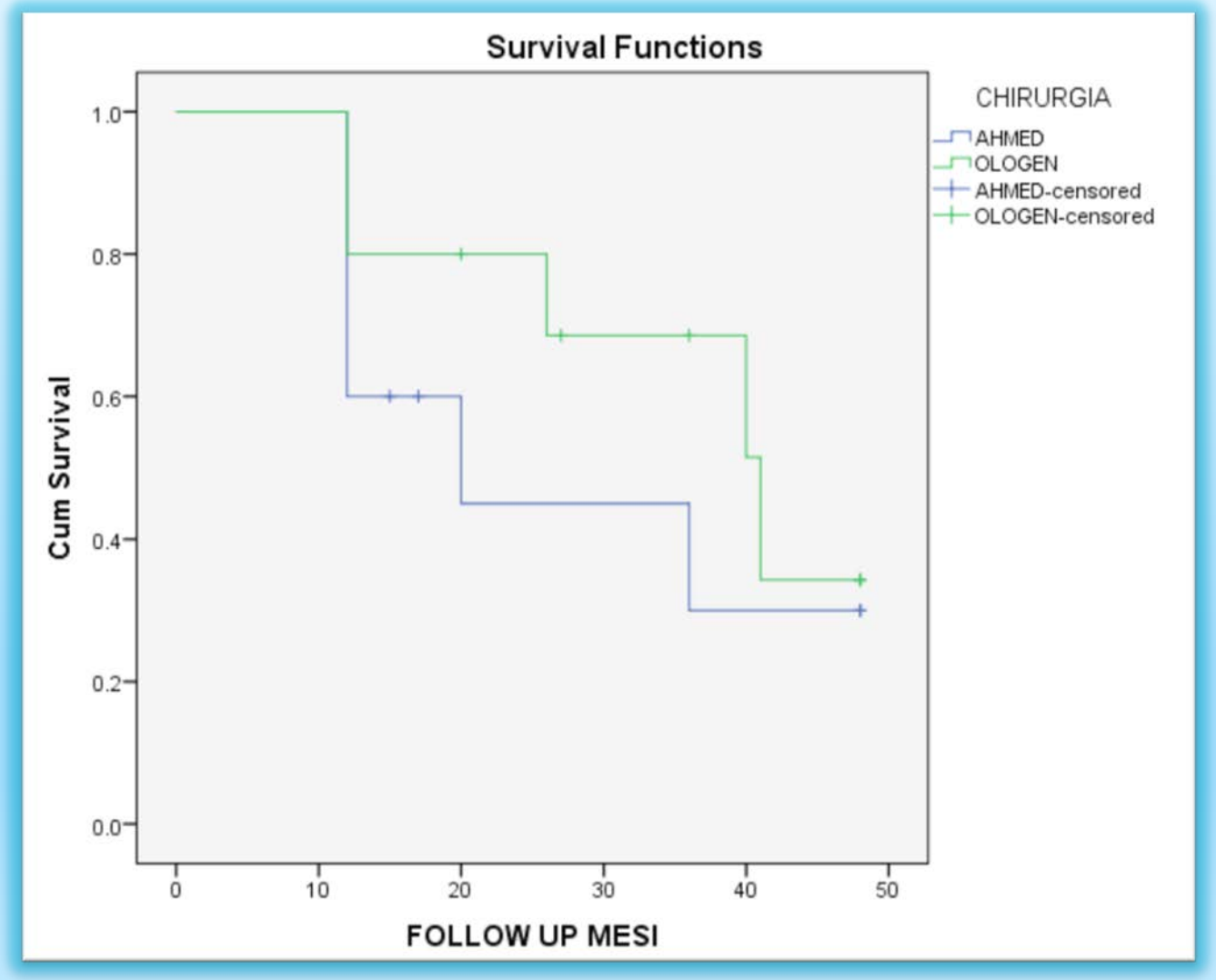


End point (2)

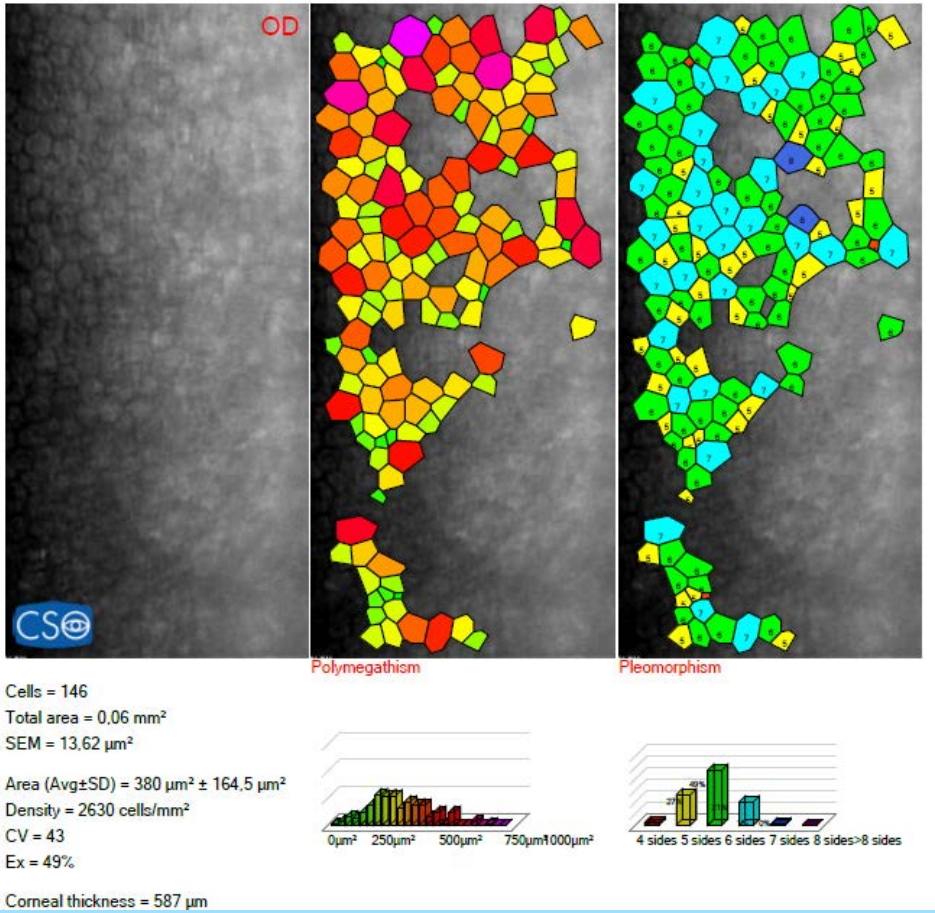
- Il numero medio di farmaci era
  - 1.8 (1.1) nel gruppo Ologen
  - 1.7 (1.2) nel gruppo Ahmed

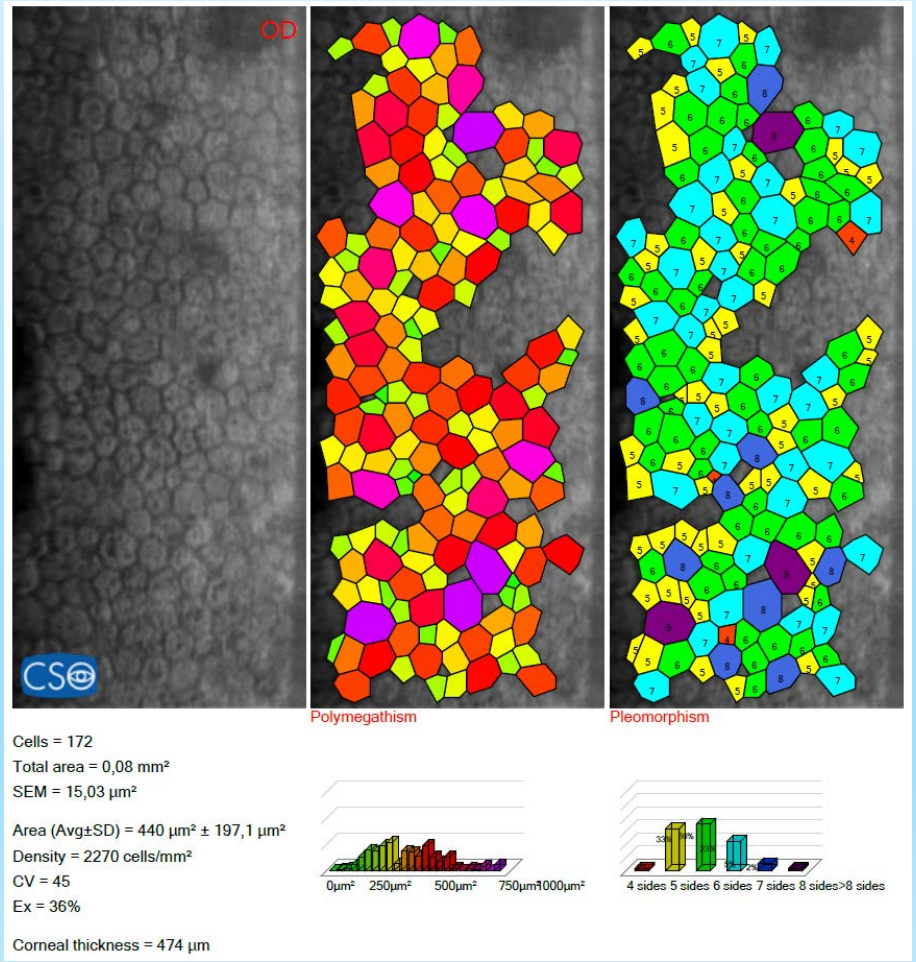
P=0.848

Curve di Kaplan Meyer



End point (3): analisi endoteliale





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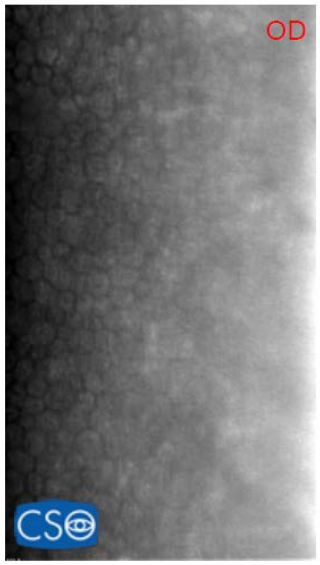
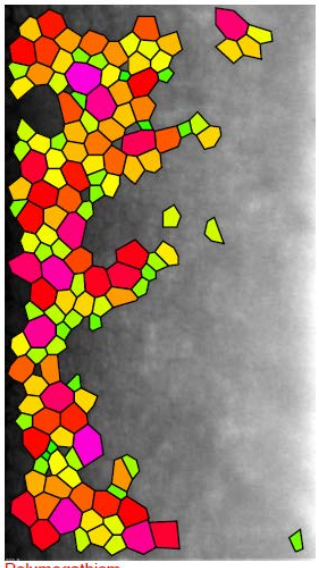
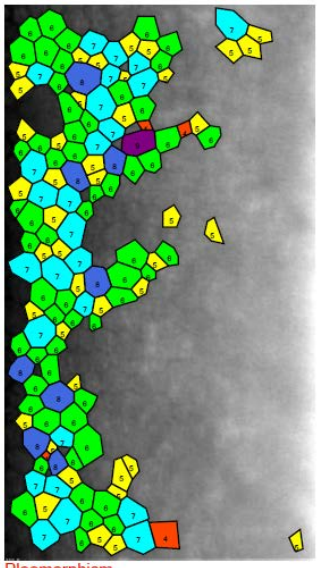




Polymegathism

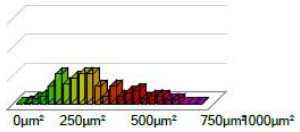


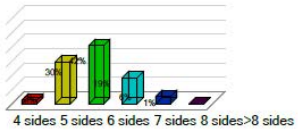
Pleomorphism

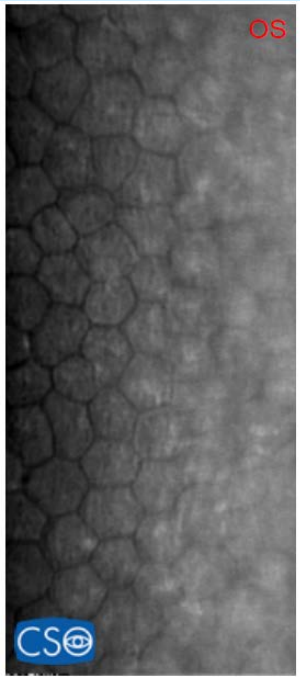
Cells = 139
Total area = 0,06 mm²
SEM = 15,57 µm²

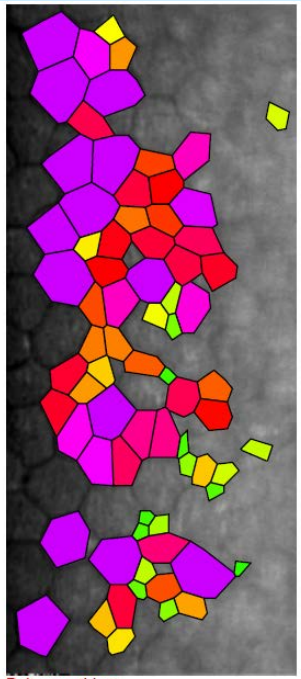
Area (Avg±SD) = 407 µm² ± 183,5 µm²
Density = 2458 cells/mm²
CV = 45
Ex = 42%

Corneal thickness = 575 µm









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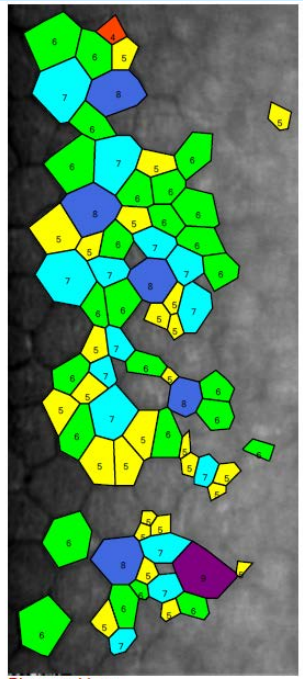
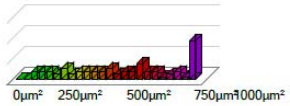


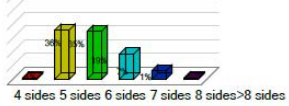
Pleomorphism

Cells = 74
Total area = 0,05 mm²
SEM = 48,15 µm²

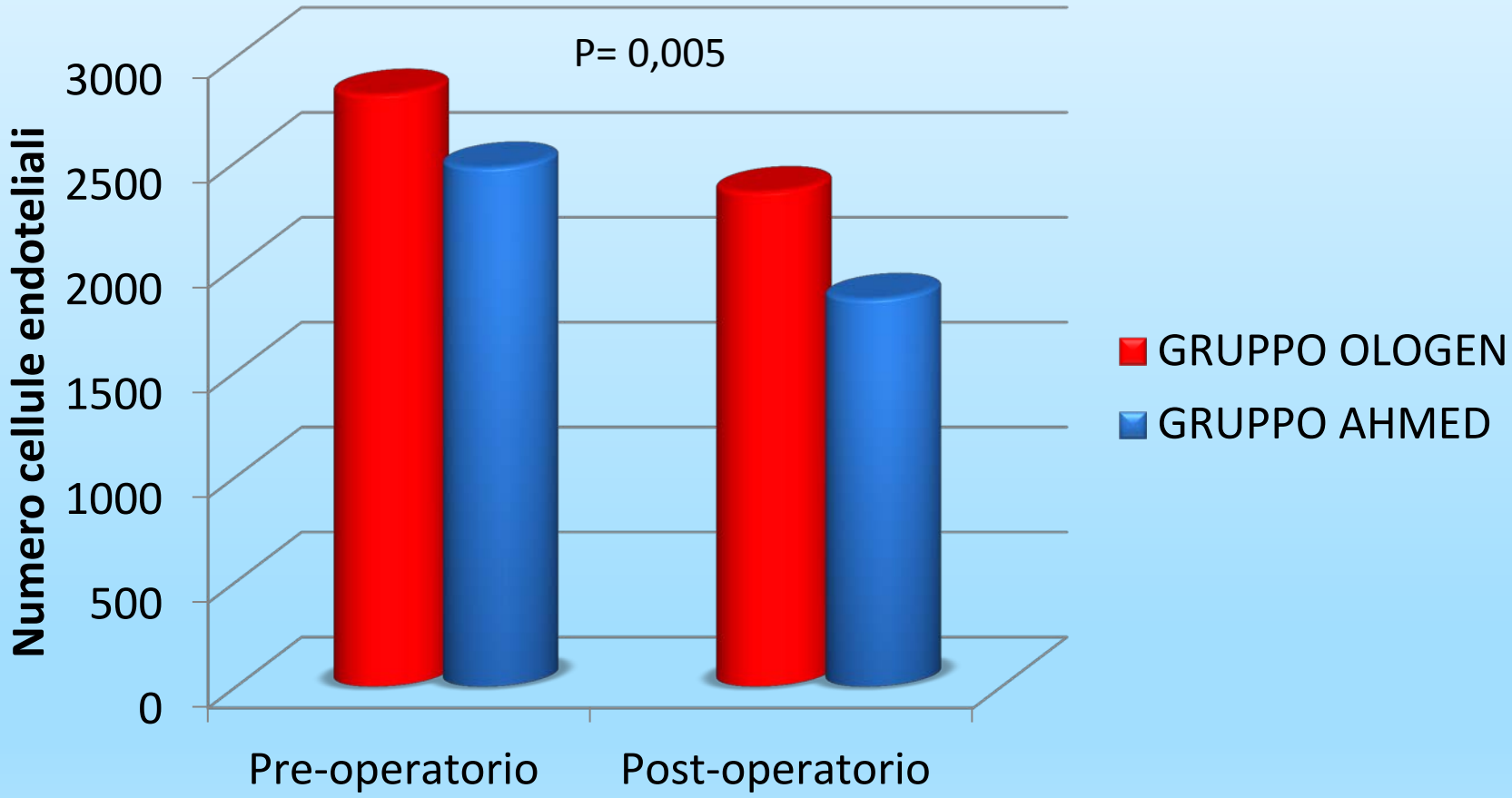
Area (Avg±SD) = 670 µm² ± 414,2 µm²
Density = 1494 cells/mm²
CV = 62
Ex = 35%

Corneal thickness = 590 µm

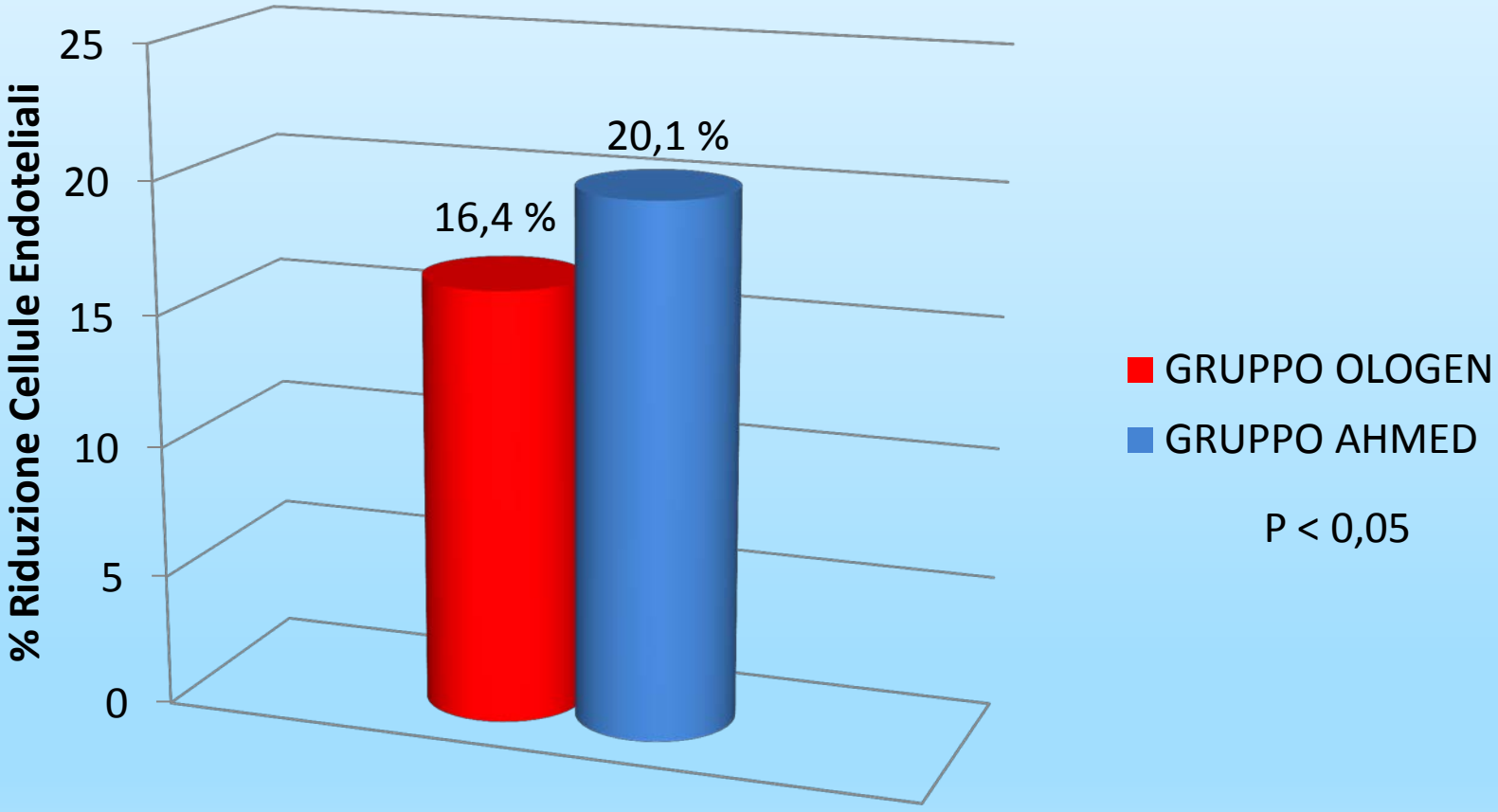




End point (3): analisi endoteliale



End point (3): analisi endoteliale



End point (4): complicanze

COMPLICANZE	CHIRURGIA	
	AHMED	OLOGEN
IPOTALAMIA	2	0
ATALAMIA	1	0
IPOTONIA	2	1
CHERATOPATIA	1	0
BOZZA CISTICA	1	1
EFFUSIONE COROIDEALE	2	1
KISSING COROIDEALE	2	0

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ORIGINAL RESEARCH

Trabeculectomy versus Ahmed Glaucoma Valve implantation in neovascular glaucoma

Results: The average follow-up was 31 months (range 6–87 months) for the Ahmed Glaucoma Valve group and 25 months (6–77 months) for the trabeculectomy group. Although the mean number of postoperative intraocular pressure-lowering medications was significantly higher in the trabeculectomy group compared with the Ahmed Glaucoma Valve group at 3 and 6 month time points, there was no statistically significant difference at any other time point. There was no statistically significant difference between both groups in postoperative visual acuity and intraocular pressure. Success was 70% and 65% at 1 year and 60% and 55% at 2 years after Ahmed Glaucoma Valve and trabeculectomy, respectively. Kaplan–Meier survival curve analysis showed no significant difference in success between the two groups ($P = 0.815$). Hyphema was the most common complication in both groups.

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Conclusion: We found similar results after trabeculectomy with mitomycin C and Ahmed Glaucoma Valve implantation in eyes with neovascular glaucoma.

Ophthalmic Surg Lasers Imaging. 2011 Sep-Oct;42(5):394-9. doi: 10.3928/15428877-20110812-04.

Corneal endothelial cell changes after Ahmed valve and Molteno glaucoma implants.

Nassiri N[1], Nassiri N, Majdi-N M, Salehi M, Panahi N, Djalilian AR, Peyman GA.

Abstract

BACKGROUND AND OBJECTIVE: Changes in corneal endothelial cell (CEC) indices 24 months after Ahmed valve (New World Medical, Inc., Rancho Cucamonga, CA) and single-plate Molteno implants (Molteno Ophthalmic Limited, Dunedin, New Zealand) were evaluated.

PATIENTS AND METHODS: This cohort included Ahmed valve (29 eyes) or single-plate Molteno (28 eyes) implants. Preoperative and postoperative central CEC indices were compared. Main outcome measure was endothelial cell count.

RESULTS: Twenty-four months postoperatively, no difference in visual acuity improvement or decrease in antiglaucoma medications was observed between groups. The Molteno group showed better postoperative intraocular pressure control ($P < .001$). An 11.52% (Ahmed) and 12.37% (Molteno) reduction in CEC density (cells/mm(2)) and 3.78 (Ahmed) and 2.48 (Molteno) increase in CEC area (mm(2)) was observed, but no significant between-group difference in CEC density and area or corneal thickness.

CONCLUSION: Twenty-four months after Ahmed valve or Molteno implant, statistically significant quantitative (cell density) and minor qualitative (cell area) changes in central CEC were observed. Both groups appeared to have similar CEC damage.

Conclusioni

- Sia la trabeculectomia con Ologen che la valvola di Ahmed sono egualmente efficaci nel controllare il tono in glaucomi refrattari con un follow-up di almeno 2 anni.

- La perdita endoteliale e le complicanze sembrano nel nostro campione più evidenti nel gruppo sottoposto a impianto di valvola di Ahmed.

- E' evidente che tali risultati devono essere confermati con un campione più numeroso ed eventualmente con uno studio prospettico randomizzato.


Grazie per l'attenzione