CENTRO CLINICO DIAGNOSTICO

POLICLINICO

G.B. Morgagni

S.r.l.

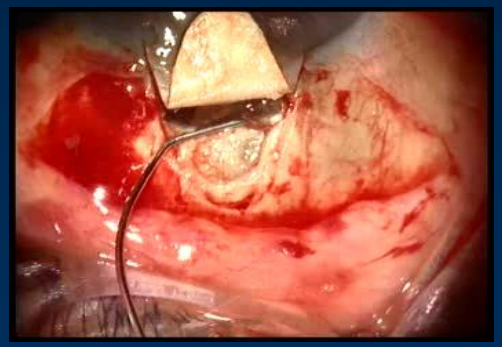
OSPEDALITÀ PRIVATA ACCREDITATA

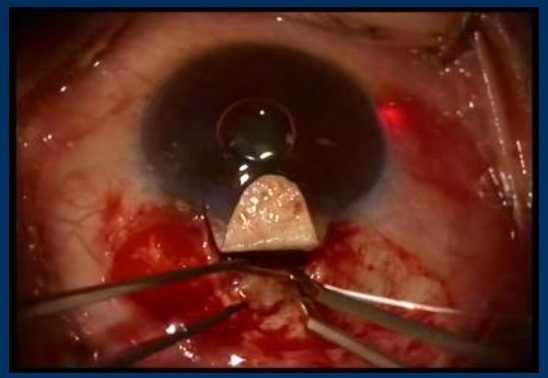
Presidio di Catania

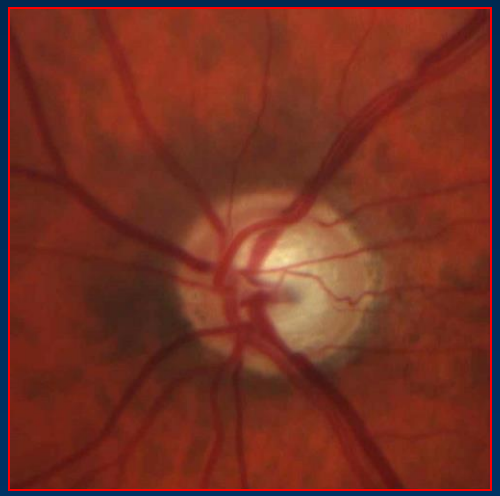
Presidio di Pedara Centro Cuore

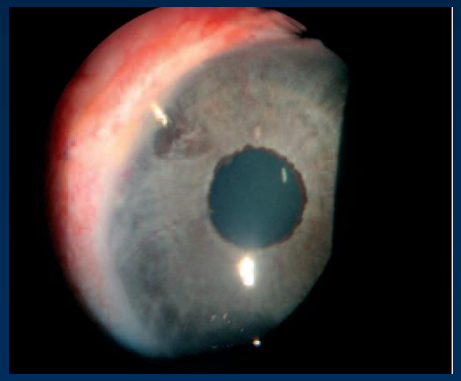
Timing del glaucoma:

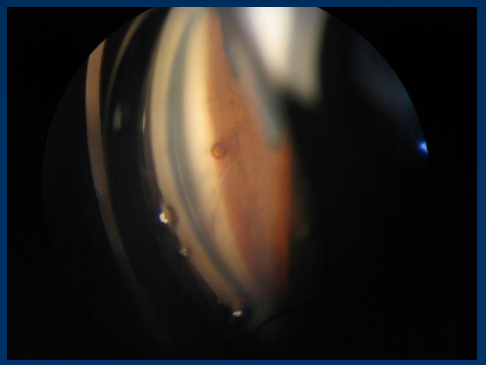
Quando la chirurgia mininvasiva





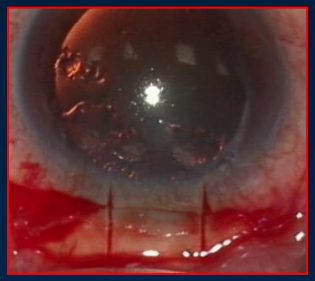




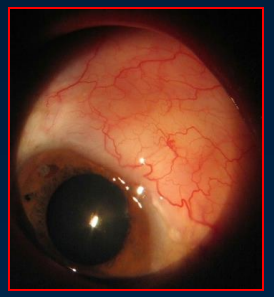


Antonio Rapisarda

Indicazioni alla Chirurgia

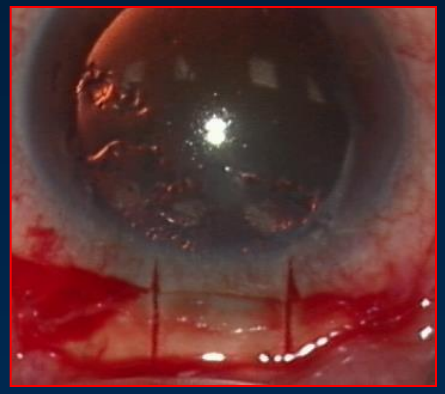


EGS 2014

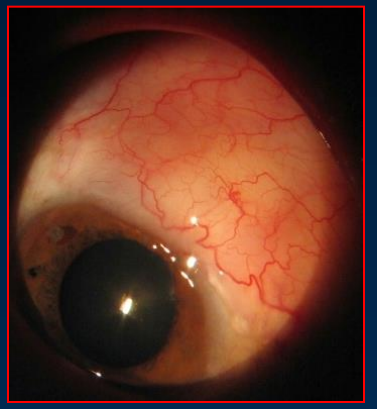


- Nei casi in cui altre forme di terapia (farmaci e laser) abbiano fallito
- Nei casi in cui altre forme di terapia non siano opportune o non utilizzabili
- Nei casi in cui è richiesto un obiettivo pressorio che non può essere raggiunto con farmaci o trattamento laser
- Nei casi in cui il tono è talmente alto alla presentazione da rendere impossibile il successo di altre forme di trattamento
- Nel caso in cui è presente una cataratta, influente sull'acuità visiva, si può eseguire un intervento combinato, sapendo che la percentuale di successo dell'intervento combinato è inferiore a quella della sola chirurgia filtrante.

Quale tecnica chirurgica ?



EGS 2014



- IOP target da raggiungere
- Anamnesi del paziente (precedente chirurgia, numero di farmaci, grado di perdita del campo visivo)
- Rischio chirurgico (occhio unico, refrazione, occupazione)
- La preferenza e l'esperienza del chirurgo
- L'opinione del paziente, le aspettative e le complicanze postoperatorie

Oggi…la chirurgia del glaucoma

- Chirurgia penetrante
  - Trabeculectomia (senza e con antimetaboliti)
  - Ex-press
  - Aquesys
- Chirurgia non penetrante
  - Viscocanalostomia
  - Sclerectomia profonda

Efficacy and Safety of Trabeculectomy vs Nonpenetrating Surgical Procedures

A Systematic Review and Meta-analysis FREE

Eliana Rulli, ScD[1]; Elena Biagioli, ScD[1]; Ivano Riva, MD[2]; Giovanni Gambirasio, MD[2]; Irene De Simone, ScD[1]; Irene Floriani, PhD[1]; Luciano Quaranta, MD[2]

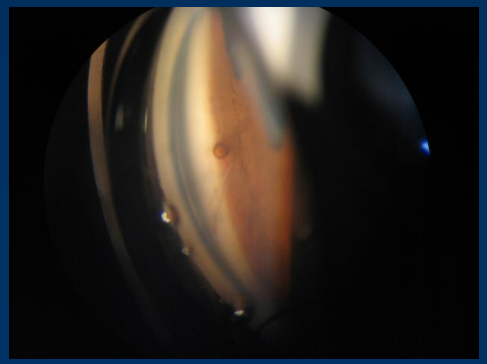
[+] Author Affiliations

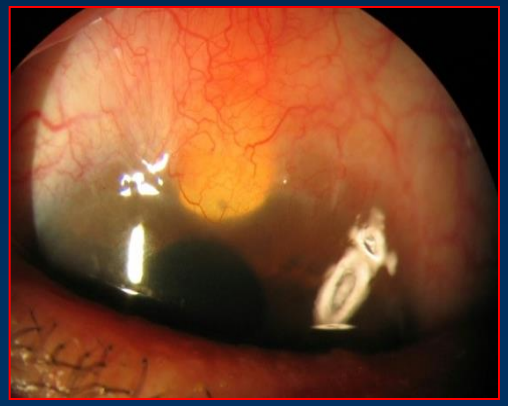
JAMA Ophthalmol. 2013;131(12):1573-1582. doi:10.1001/jamaophthalmol.2013.5059. Text Size: A A

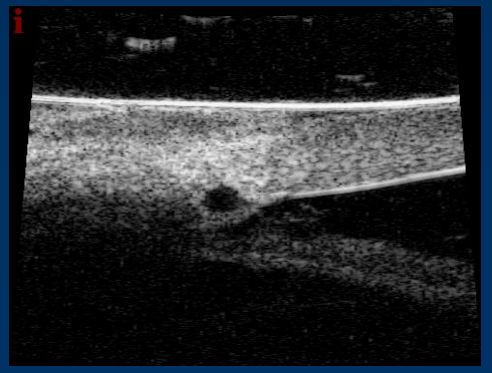
- MIGS (Cypass, Trabectome, iStent etc….)
- Impianto di protesi drenanti o valvolati (Baerveldt,

Quando MIGS ?

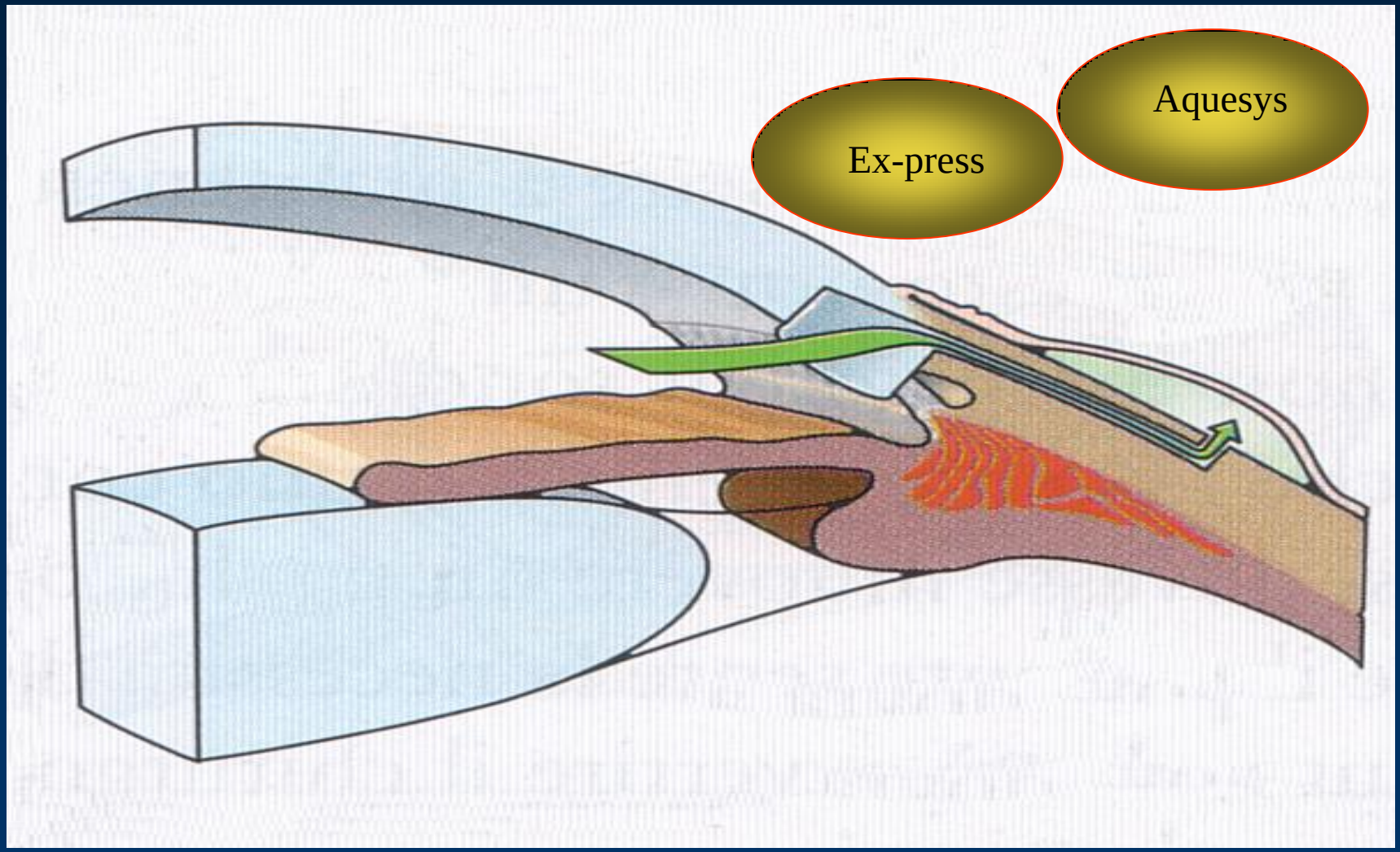
Nei glaucomi, iniziali ed avanzati, scompensati con 1 o 2 farmaci, con CV in progressione lenta, con o senza intervento di facoemulsificazione associato. Quando non vogliamo aggiungere un altro farmaco. Fallimento chirurgia filtrante.





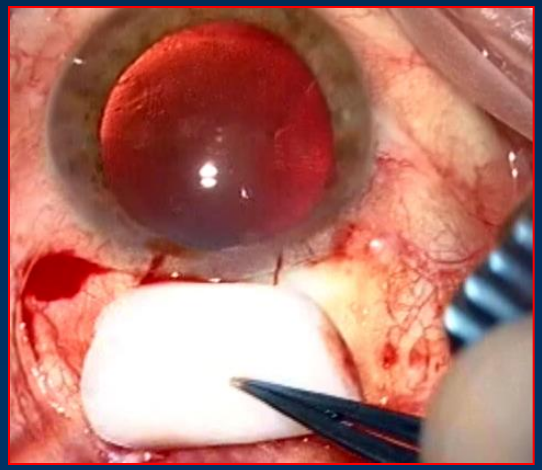


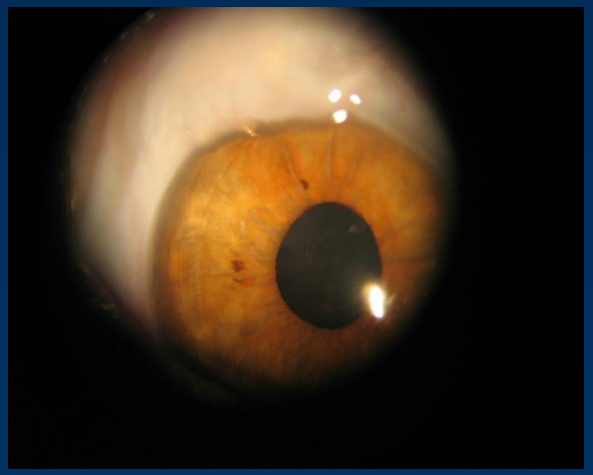
Chirurgia penetrante



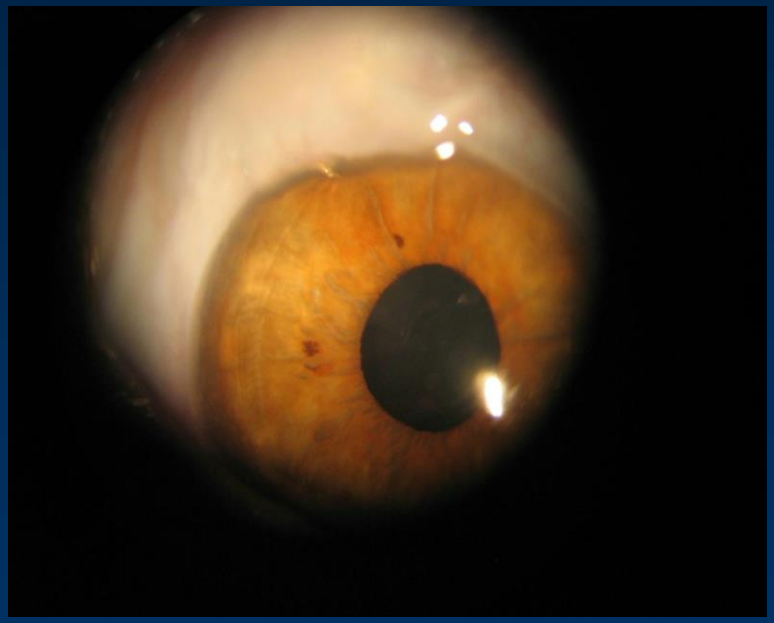
Quando una Express ?

Nei glaucomi, iniziali o avanzati, scompensati con 1 o 2 farmaci, con CV in progressione, con o senza intervento di facoemulsificazione associato. Quando non vogliamo aggiungere un altro farmaco.





Ex-Press: vantaggi versus trabeculectomia



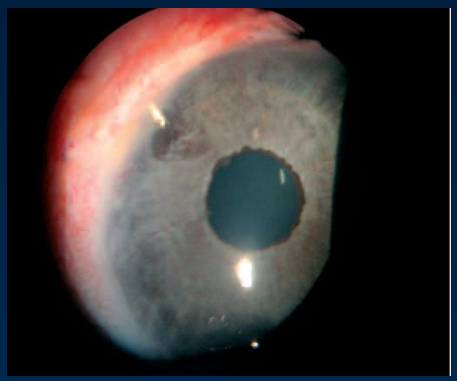
Minore invasività (no sclerectomia no iridectomia)

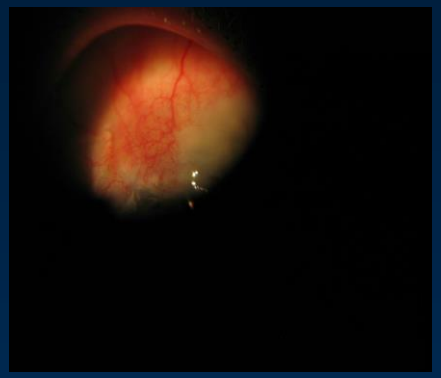
Ridotta cicatrizzazione??

Breve curva d'apprendimento

Reversibilità

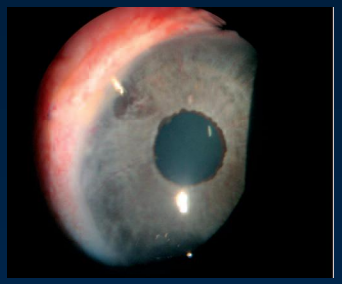
Ex-Press: versus trabeculectomia

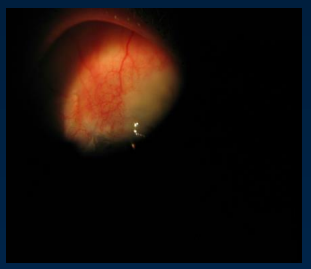




- Ex-press implantation versus trabeculectomy in uncontrolled glaucoma: a meta-analysis (605 occhi).
- Wang W et al.; Plos One. 2013
- *Gli autori hanno messo in evidenza come vi sia una riduzione di frequenza di alcune complicanze postoperatorie (ipoema, ipotono e fibrosi capsulare).*

Ex-Press: versus trabeculectomia

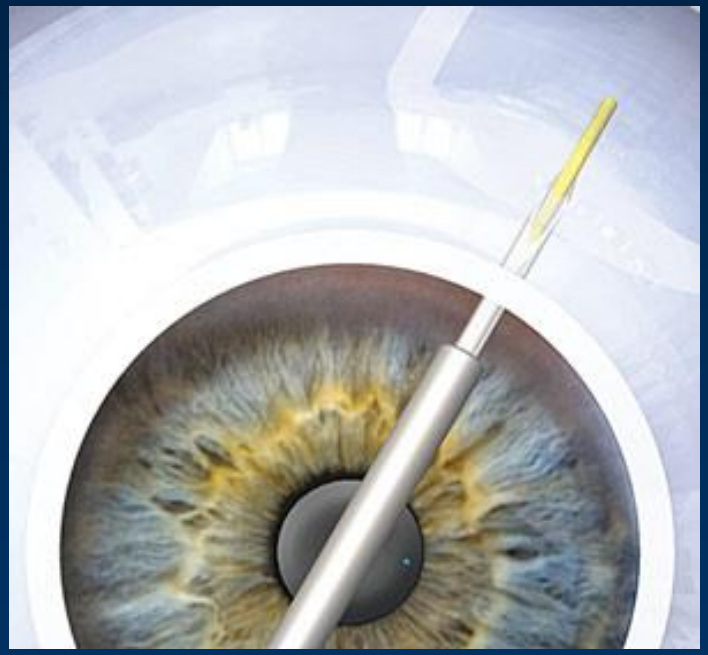


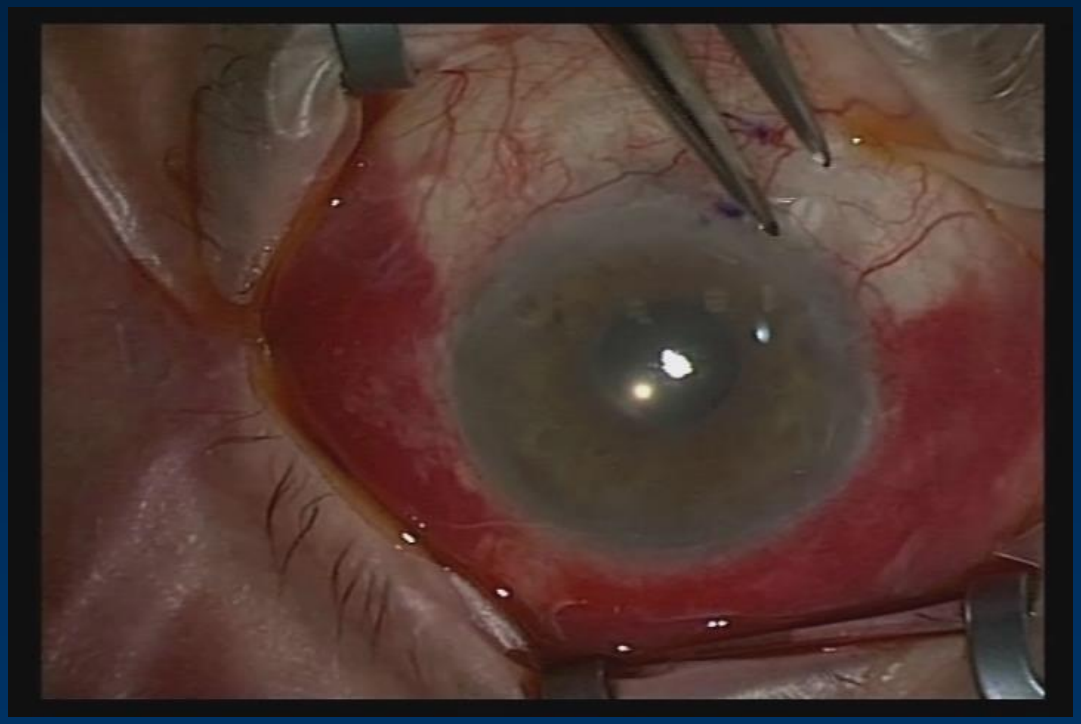


- Ex-press implantation versus trabeculectomy in glaucoma: a meta-analysis of randomized controlled clinical trials (215 occhi).
- Chen G et al.; Plos One. 2014
- *Gli autori hanno evidenziato che non vi sono differenze statisticamente significative tra le due tecniche chirurgiche riguardo l'efficacia, la tollerabilità e la frequenza di alcune complicanze postoperatorie (ipotono, riduzione ca, distacco di coroide).*

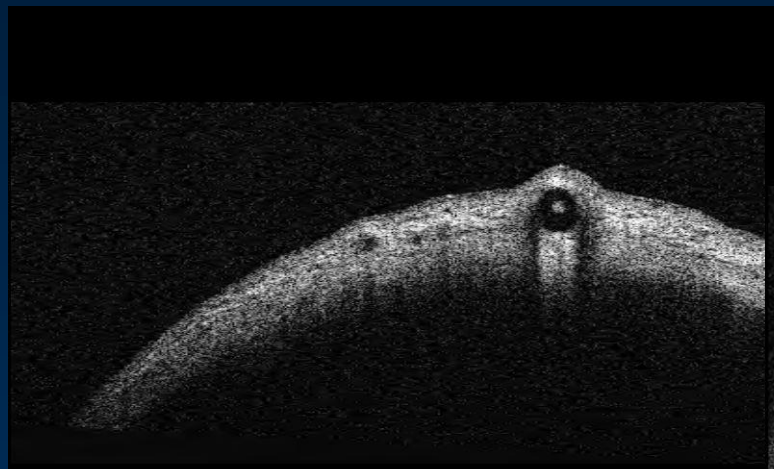
AQUESYS

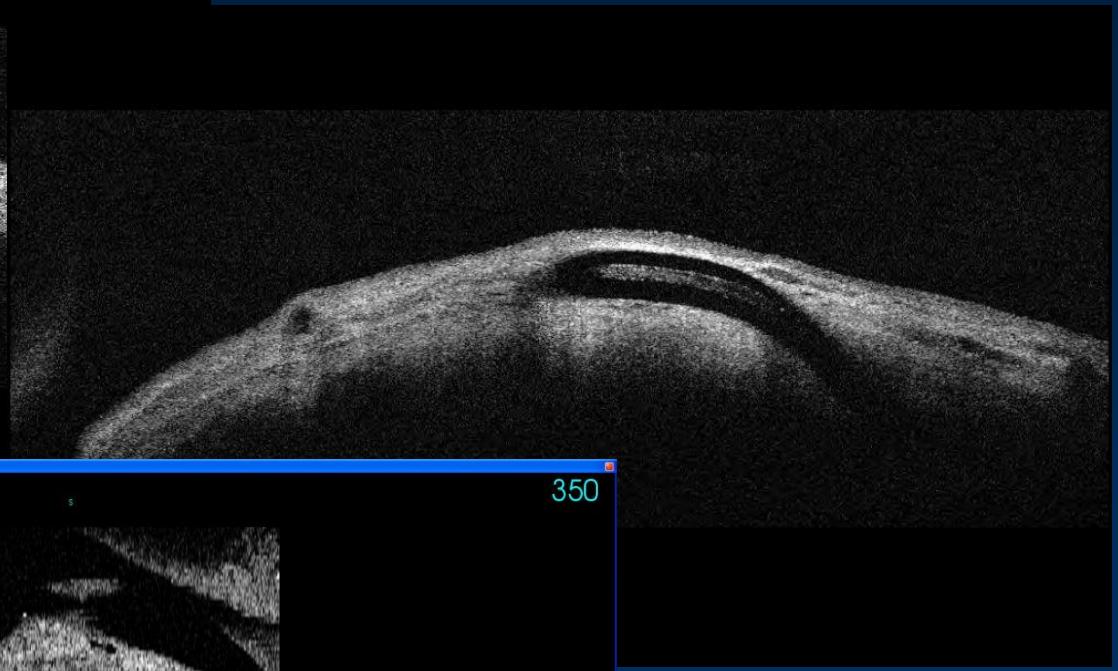
ab interno subconjunctival implant

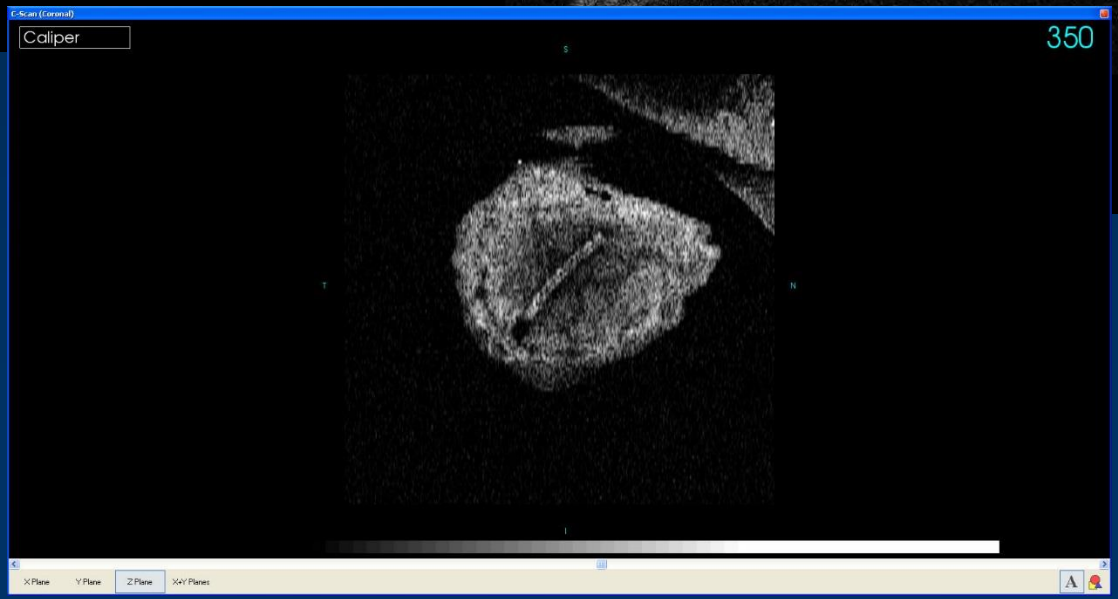




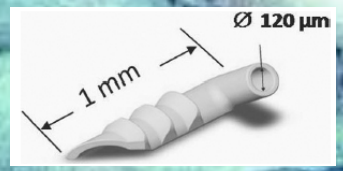
Soft, permanent , gelatine implant



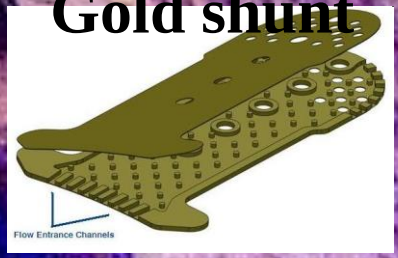



C-Scan (Coronal)
Caliper
350
S
T
N
I
X Plane
Y Plane
Z Plane
X+Y Planes

Micro-invasive glaucoma surgery (MIGS): utilizzo dello spazio sovracoroideale e delle vie di deflusso naturali



Gold shunt



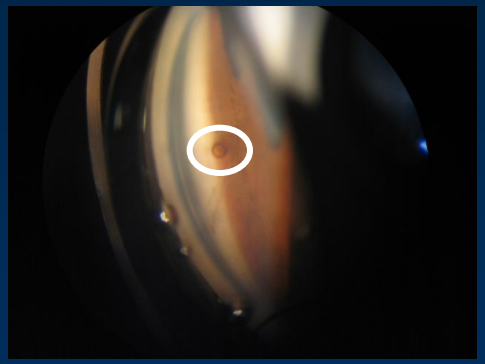
Cypass

Cypass

Lanchulev S, Ahmed I, Hoeh H, *et al.* Minimally invasive ab-interno suprachoroidal device (CyPass) for IOP control in open-angle glaucoma. AAO 2010 Poster.

This abstract reports the preliminary results of the implantation of the ab interno CyPass microstent with phacoemulsification.

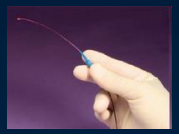
⇓⇓ IOP



Craven ER, Khatana A, Hoeh H, *et al.* Minimally invasive, ab interno supra-choroidal micro-stent for IOP reduction in combination with phaco cataract surgery. AAO 2011 Poster.

This abstract reviews the safety outcomes of a 121 eyes that underwent CyPass microstent implantation and phacoemulsification.

Canaloplastica



Canaloplasty: Circumferential viscodilation and tensioning of Schlemm canal using a flexible microcatheter for the treatment of open-angle glaucoma in adults

Two-year interim clinical study results

Richard A. Lewis, MD, Kurt von Wolff, MD, Manfred Tetz, MD, Norbert Koerber, MD, John R. Kearney, MD, Bradford J. Shingleton, MD, Thomas W. Samuelson, MD

J Cataract Refract Surg 2009; 35:814–824 © 2009 ASCRS and ESCRS

Multicentrico, prospettico - 127 occhi – Follow-up 2 aa

Canaloplastica

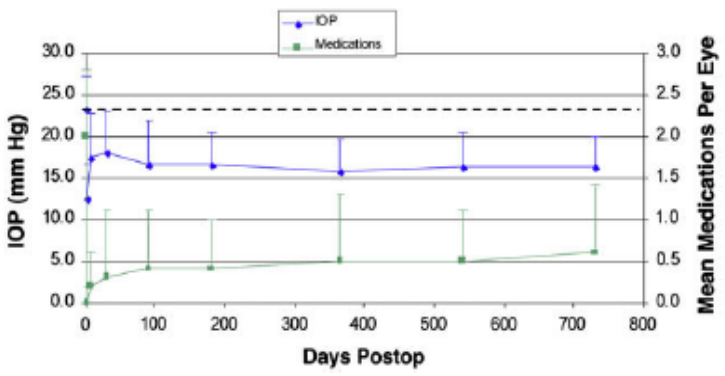
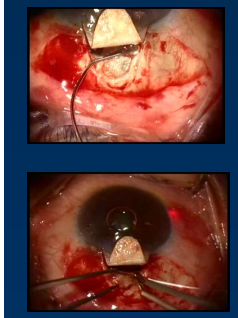


Figure 5. Group 2 efficacy (canaloplasty alone) showing mean IOP (±SD) and mean medications. The dashed line indicates the baseline IOP of 23.2 mm Hg (IOP = intraocular pressure).



IOP 16.3 ± 3.7 ↓ 30%

Ipotonizzanti 0.6 ± 0.8 ↓ 70%

Faco-Canaloplastica

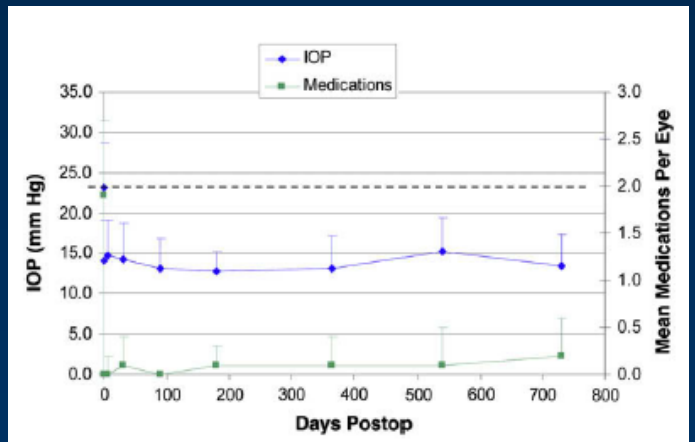


Figure 6. Group 3 efficacy (phacocanaloplasty eyes) showing mean IOP (±SD) and mean medications. The dashed line indicates the baseline IOP of 23.1 mm Hg (IOP = intraocular pressure).

IOP 13.4 ± 4.0 ↓ 42%

Ipotonizzanti 0.2 ± 0.4 ↓ 88%

Canaloplastica

J Glaucoma. 2014 Oct 14. [Epub ahead of print]

Canaloplasty in Open-angle Glaucoma: Mid-term Results From a Multicenter Study.

Brusini P[1], Caramello G, Benedetti S, Tosoni C.

Author information

Abstract

PURPOSE:: To present the mid-term results of a prospective multicenter study on canaloplasty surgery in chronic open-angle glaucoma.

MATERIALS AND METHODS:: A total of 218 eyes from 197 patients with open-angle glaucoma under maximum tolerated medical therapy underwent canaloplasty within a time period of 42 months in 3 different Italian eye centers. All patients underwent a complete ophthalmic examination every 6 months. The follow-up ranged from 3 to 42 months.

RESULTS:: The entire procedure according to standard protocol could not be performed in 20 eyes (9.2%). A total of 198 eyes from 178 patients with a mean follow-up of 23.1±10.6 months were taken into consideration. The preoperative mean intraocular pressure (IOP) was 28.4±7.5 mm Hg. The mean IOP at the 2-year follow-up was 15.9±4.7 mm Hg (range, 6 to 40 mm Hg; paired t test; P=0.0001), with a mean reduction from baseline of 44% (range, 11.1% to 82.8%). After 2 years of follow-up, a qualified success rate based on postoperative IOP≤21, ≤18, and ≤16 mm Hg was obtained in 82 (92.1%), 75 (84.3%), and 61 (68.5%) eyes, respectively; a complete success for an IOP≤21, ≤18, and ≤16 mm Hg was obtained in 63 (70.8%), 60 (67.4%), and 53 (59.5%) eyes, respectively. The number of medications used preoperatively and at the 2-year follow-up was 3.2±0.9 and 1.1±1.3, respectively. The most frequently seen complications included: hyphema in 47 eyes (23.7%), Descemet membrane detachment in 11 eyes (5.5%), and IOP spikes >10 mm Hg in 12 cases (6.1%).

CONCLUSIONS:: Canaloplasty is a quite difficult surgical technique; however, mid-term results are promising. Complications can sometimes occur, but are seldom serious. The main advantage of this promising bleb-less procedure is that physiological humor aqueous outflow is restored.

PMID: 25318581 [PubMed - as supplied by publisher]

Canaloplasty in Open-Angle Glaucoma Surgery: A Four-Year Follow-Up

Paolo Brusini

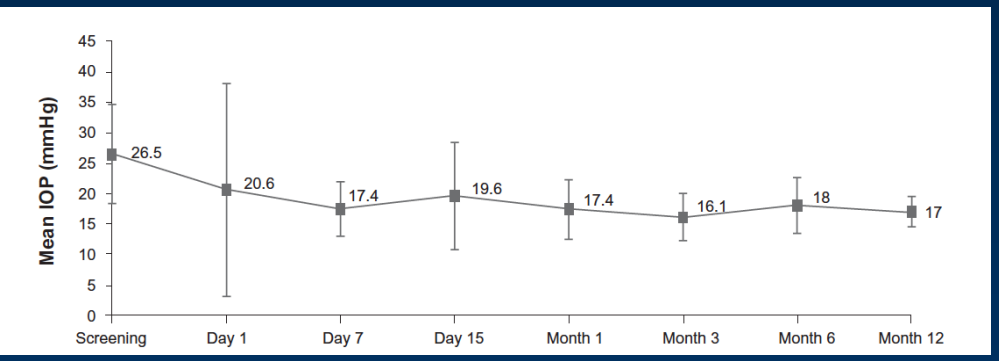
Hindawi Publishing Corporation
The Scientific World Journal
Volume 2014, Article ID 469609, 7 pages

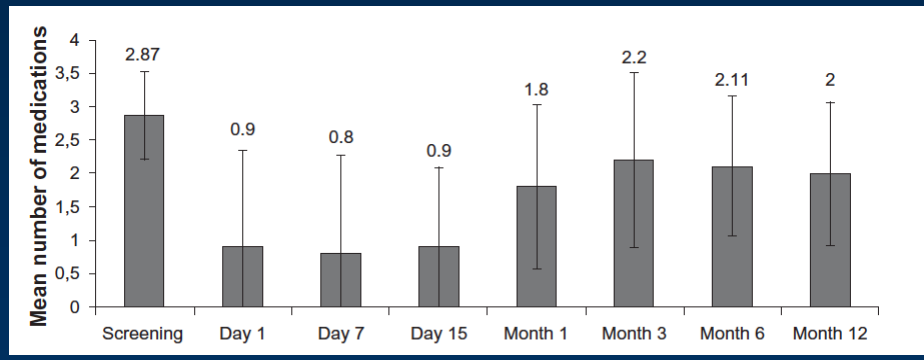
iStent

One-year analysis of the iStent trabecular microbypass in secondary glaucoma

Clinical Ophthalmology 2011:5 321–326

Conclusion: The iStent is a safe and effective treatment option in patients with secondary open-angle glaucoma, and reduces the topical treatment burden in one hypotensive medication.





Open Access Full Text Article

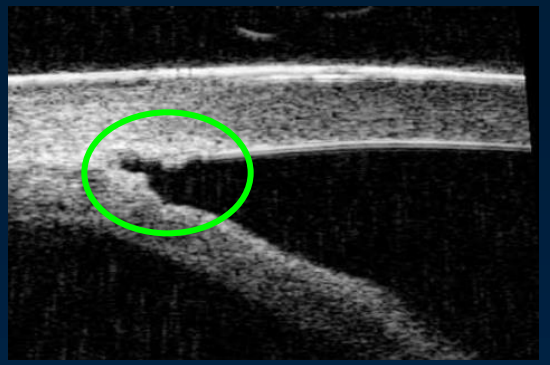
REVIEW

iStent trabecular micro-bypass stent for open-angle glaucoma

Kim Le
Hady Saheb

This article was published in the following Dove Press journal:
Clinical Ophthalmology
23 September 2014

Trabectome

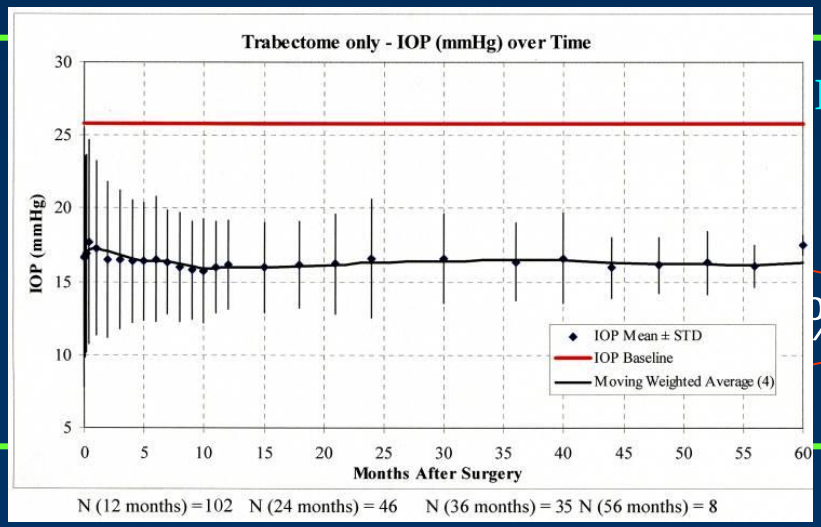


TRABECTOME (TRABECULECTOMY—INTERNAL APPROACH): ADDITIONAL EXPERIENCE AND EXTENDED FOLLOW-UP

BY **Don Minckler MD MS,*** Sameh Mosaed MD, Laurie Dustin MS, Brian Francis MD MS, AND the Trabectome Study Group†

Trans Am Ophthalmol Soc 2008;106:149-160

- Studio retrospettivo non comparativo 1127 follow-up eterogeneo



me

%

Faco+Trabectome
(366)

20-30%

29%

Trabectome

Outcomes of ab interno trabeculectomy with the trabectome after failed trabeculectomy

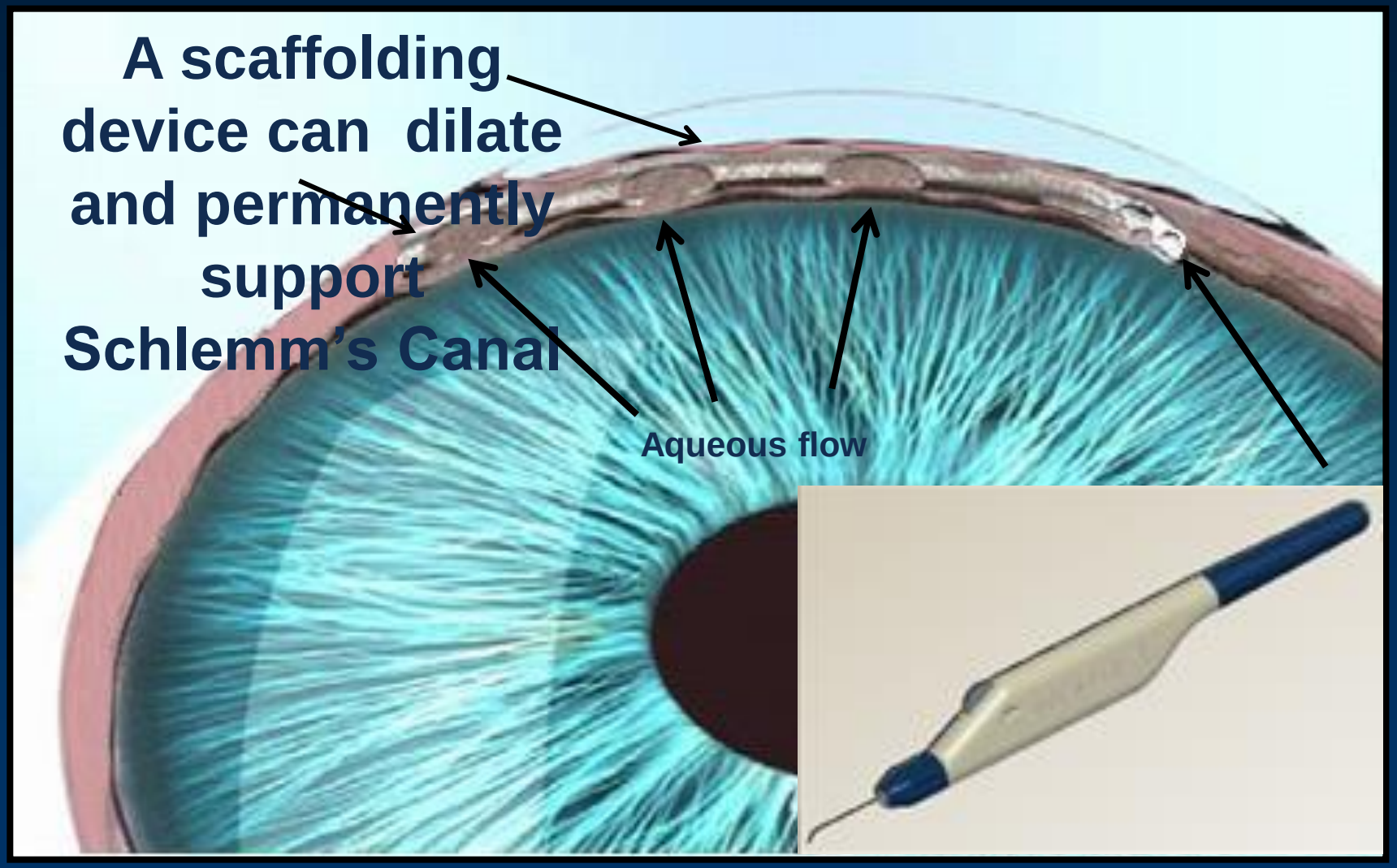
I I Bussel,[1] K Kaplowitz,[2] J S Schuman,[1,3] N A Loewen,[1] Trabectome Study Group

Results Seventy-three eyes of 73 patients with 1 year follow-up were identified. At 1 year, mean IOP in AIT significantly decreased by 28% from 23.7±5.5 mm Hg, and medications from 2.8±1.2 to 2±1.3 (n=58). In phaco-AIT, the mean IOP decreased 19% from 20 ±5.9 mm Hg and medications from 2.5±1.5 to 1.6±1.4 (n=15). Transient hypotony occurred in 7%, and further surgery was necessary in 18%. For AIT and phaco-AIT, the 1-year cumulative probability of success was 81% and 87%, respectively.

Conclusions Both AIT and phaco-AIT showed a reduction in IOP and medication use after 1 year, suggesting that AIT with or without cataract surgery is a safe and effective option following failed trabeculectomy.

Bussel II, *et al. Br J Ophthalmol* 2015;**99**:258–262.

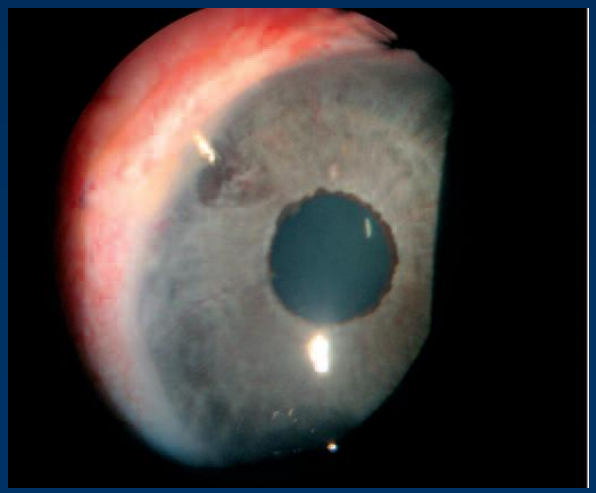
Hydrus


A scaffolding device can dilate and permanently support Schlemm's Canal
Aqueous flow

Conclusioni: Timing chirurgia mininvasiva

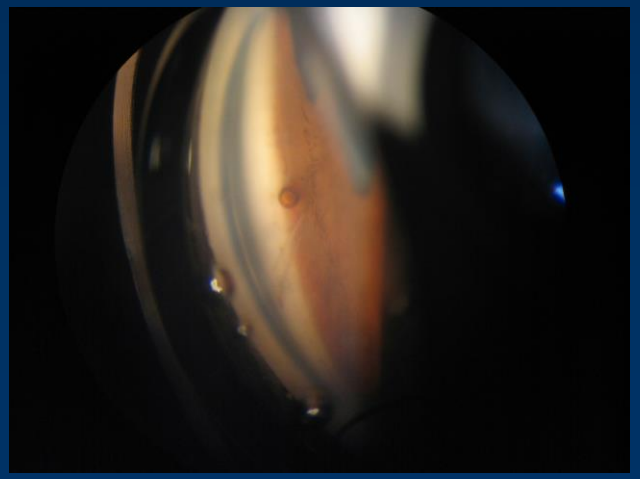
Gestione di casi complessi

Express
Canaloplastica



Gestione di casi semplici

Tutte le altre tecniche
MIGS ?!?!



Conclusioni

Importante: **Castomizzare la scelta chirurgica !!!**

Grazie