

AUGENTAGESKLINIK
SPREEBOWEN

Kanaloplastik
Kombiniert mit Phakoemulsifikation

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Non perforating glaucoma surgery: Alternative or supplement of traditional filtering surgery?

Discussion 1975 (Scheie versus TE)

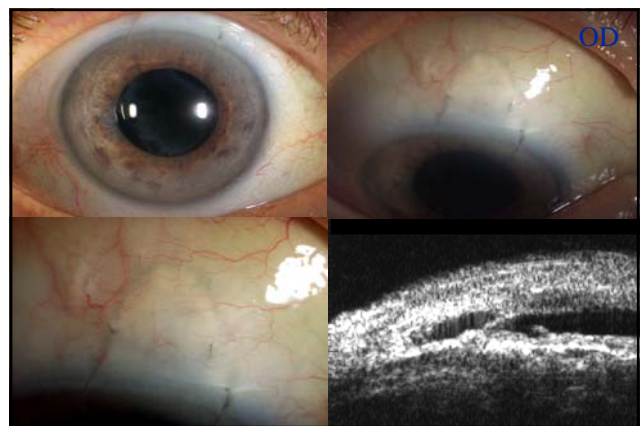
Trabeculectomy: a reevaluation after three years and a comparison with Scheie's procedure.
Spaeth GL; Joseph NH; Fernandes E
Trans Am Acad Ophthalmol Otolaryngol 1975 Mar-Apr;79(2):OP349-61
PMID: 1145958 UI: 75199941

Seventy-one patients with glaucoma needing surgical correction had either a peripheral iridectomy with a thermal sclerostomy or a trabeculectomy utilizing a modification of Watson's technique in which the scleral flap was closed tightly with sutures. Results of surgery were analyzed at intervals up to an including three years following the surgical procedure. The success of the operations was judged both in terms of the effect on intraocular pressure as well as on the visual ability of the eye. Since the surgeon's aim is to lower intraocular pressure to a particular level, not simply to an arbitrary level that facilitates statistical analysis, the control of the disease was graded in terms of how completely the operative procedure fulfilled the goal set by the surgeon at the time the decision to operate was made. While this method of grading success introduces a subjective element, a more valid assessment of the true value of the surgery may be obtained. The results suggest that the Scheie procedure lowers pressure to a lower level and for a longer duration than does the trabeculectomy (mean intraocular pressure three years postoperatively was 12.3 mm Hg in patients with primary glaucoma treated with a Scheie procedure and 16.6 mm Hg in those with trabeculectomy with a sutured scleral flap). In this study the long-term visual result was apparently no different with the Scheie procedure and trabeculectomy. Trabeculectomy causes fewer flat anterior chambers than the Scheie procedure. The degree of pressure lowering in trabeculectomy is directly related to the amount of postoperative filtration. The relative indications for trabeculectomy include: (1) malignant glaucoma in the other eye, (2) chronic angle-closure glaucoma where an iridectomy is considered insufficient, (3) "high pressure glaucoma" where pressure below 20 mm Hg is not essential, (4) low flow glaucoma in which persistent flat anterior chambers may be expected following routine filtration surgery, and (5) patients where endophthalmitis is a real concern, as in the young, those remote from medical care and those with poor personal hygiene. Trabeculectomy gives such poor results in secondary glaucoma that the procedure is probably relatively contraindicated. Trabeculectomy is a valuable operation, but not the final solution to glaucoma surgery; It should be chosen with full recognition of

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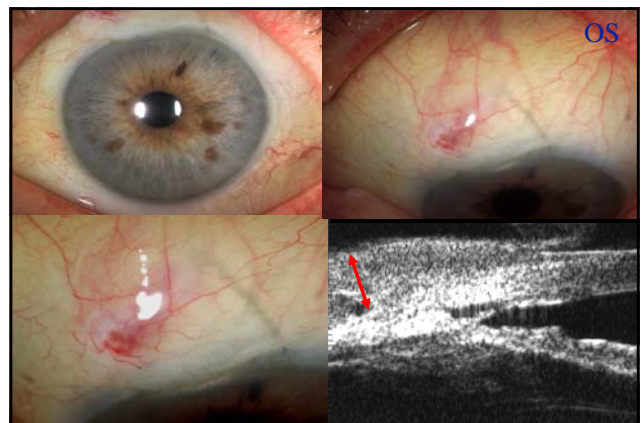
Wirkungsmechanismus
Unterschiedliche prozentuale Anteile des

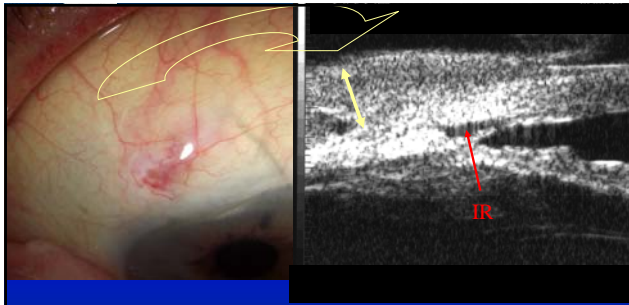
- Abflusses via Schlemm'schen Kanal
- uveoskleralen Abflusses
- der subconjunctivalen Filtration (<50%)



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OD IOP postop 10-14 mmHg
Without therapy, no to minimal filtering bleb
intrascleral reservoir (IR), outflow via Schlemm's canal

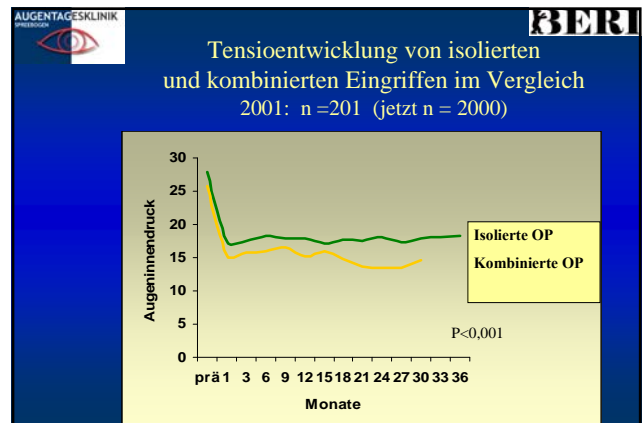
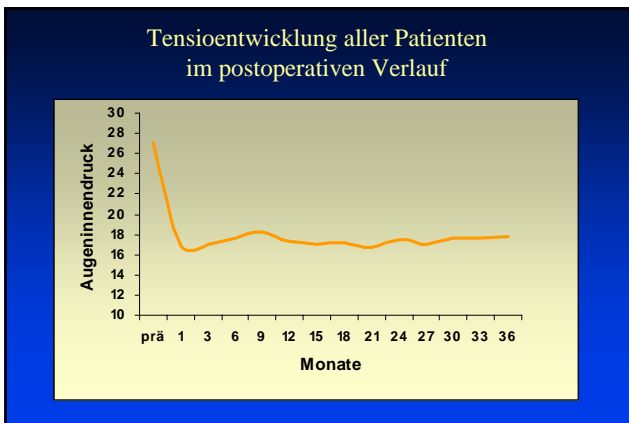
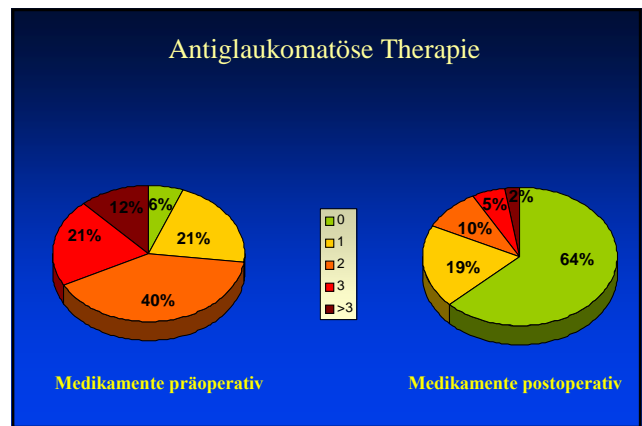
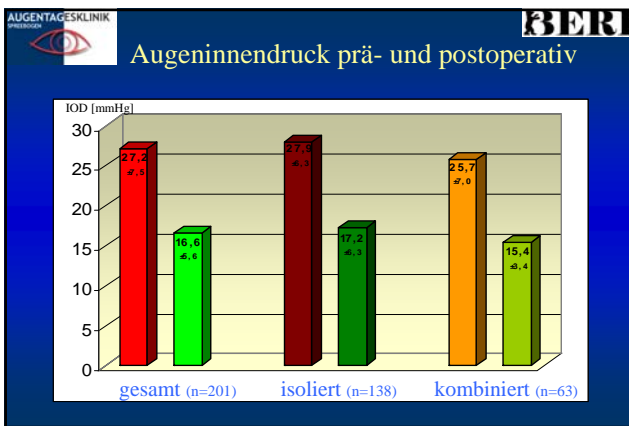


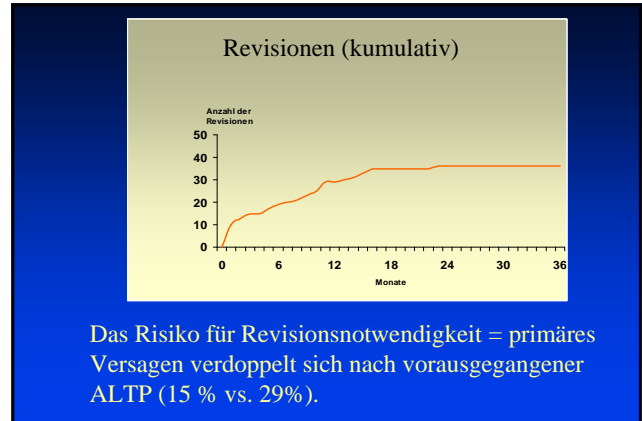
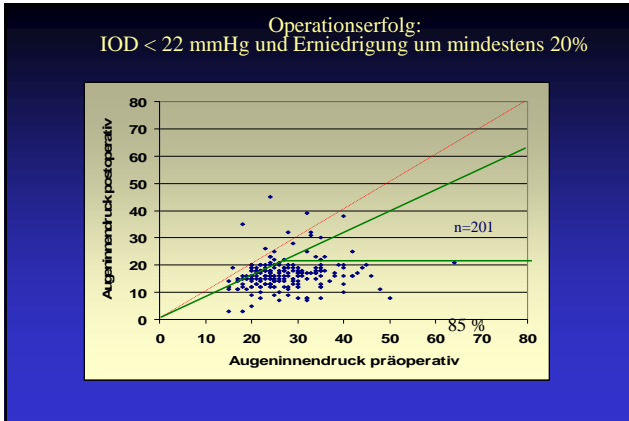


OS IOP 15-18 mmHg without therapy,
 Despite filtering bleb (yellow arrows) higher IOP than OD,
 intrascleral reservoir (IR) small, mostly subconjunctival outflow

Viscocanalostomie

201 Augen von 173 Patienten
 Durchschnittsalter: 67 +/- 15 Jahre
 Nachbeobachtungszeitraum 1-42 (13,1 +/- 11,4) Monate
 138 Augen: isolierte Viscocanalostomie
 63 Augen: kombiniert mit Phakoemulsifikation





Viscocanalostomie: Was dürfen wir erwarten ?

Über 85% der Augen nach Visco sind „kontrolliert“ (20% Tensio Senkung und unter 22 mmHg mit max. 2 Wirkstoffen, 2/3 ohne jegliche postop. Medikation)

Tensio Senkung von durchschnittlich 35%, meist stabil 3 Jahre und mehr.

Viscocanalostomie: Was dürfen wir erwarten ?

Erfolgsrate geringer bei Patienten mit vor OPs oder ALTP-laserbehandlungen = 73%. (p=0.003)

Revisionsrate steigt nach vorausgegangenen ALTPs von 15 auf 25%. (p=0.004)

Kombination mit Phaco erhöht Effekt (2-3 mmHg).

Canaloplastik: Warum ?

Hauptkritikpunkt:
Niedrigerer post OP Druck erforderlich !

Lösungsansatz:
Abfluss in den gesamten Kanal soll leichter werden.

Frage: Wo steht komb OP ?

Canaloplasty Study (Begin 2005)
Interim Data
Europe & Africa (6 months)

- Germany
 - Norbert Körber
 - Manfred Tetz
 - Kurt D. van Wolff
- United Kingdom
 - Clive Peckar
- South Africa
 - Robert Stegmann

**Canaloplasty:
Multicenter Study**

- Prospective study
- Data here 3 European large centers only: N = 189 enrolled
- Inclusion criteria:
 - IOP > 21
 - Diagnosis: open angle glaucomas
 - Suture successfully placed in canal
- Exclusion criteria
 - Previous angle surgery
 - More than 2 laser trabeculoplasty
 - Closed or secondary open angle glaucomas:
 - Neovascular disease
 - Uveitis
 - Chronic angle closure
- Finally included N = 131



**Gesamtergebnisse der
Multizenter Studie Europa**

	Tensio		Medikamente	
	Mean (Stdev)	N	Mean (Stdev)	
Baseline	23.7 mmHg (4.9)	131	1.8 (0.8)	
3 Mon	15.5 mmHg (5.2)	77	0.4 (0.8)	
6 Mon	15.1 mmHg (3.3)	59	0.4 (0.7)	
12 Mon	14.9 mmHg (4.1)	54	0.6 (0.9)	

Durchschnittl. T-senkung **37%**
IOP in mm Hg, Averages Reported

Kombiniert mit Phako

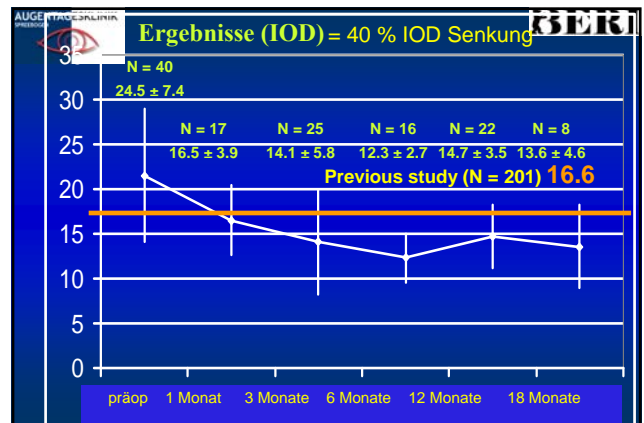
Combined
Pre-op IOP ≥ 16 mmHg

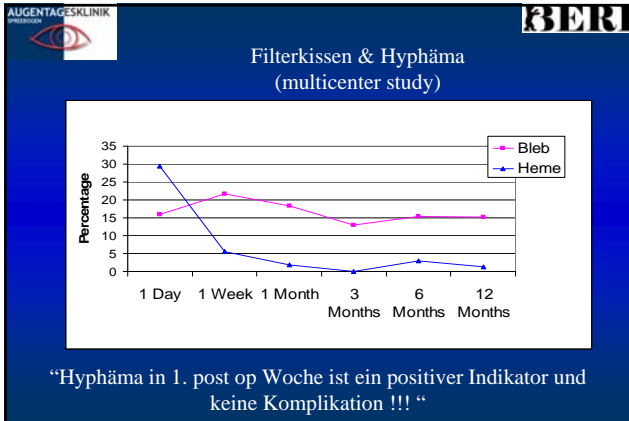
	IOP (Meds)	N
Baseline	24.7 (+/- 6.3) mmHg (1.5)	21
3 months	14.0 (+/- 4.5) mmHg (0.2)	13
6 months	12.0 (+/- 2.6) mmHg (0.1)	11
12 months	13.5 (+/- 4.0) mmHg (0.2)	13

Durchschnittl. T-senkung **45%**
IOP in mm Hg, Averages Reported

Patienten (nur Berlin Ergebnisse)

- N = 40 Patienten (17 m, 23 f)
- Alter: 68 ± 11 Jahre
- 23 x Kombination der Kanaloplastik mit Phako
- 1,3, 6, 12 und 18 - Monats Ergebnisse





- Sehr positive Ergebnisse
- 3 mmHg niedriger als mit Viscocanalostomie
- Keine erhöhte Komplikationsrate

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31113
- ### Canaloplastik: Bisherige Ergebnisse
- Erfahrung mit Viscocanalostomie beeinflusst Ergebnisse positiv
 - Erfolgsrate der Canaloplastik höher als Visco
 - Drucksenkung effektiver
 - IOD in „lower teens“
 - Niedrige Komplikationsrate

