



UNIVERSITÄTS**medizin.**
MAINZ

What to do if surgery is no
further option?

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This is a dilemma

- Usual approach
 - Medication/Laser first
 - Surgery if medication fails /unavailable

- Three challenges
 - Patient needs but does not want surgery
 - Cannot have surgery (anaesthesia, morbidity)
 - Surgery has failed

Patient does not want surgery

- Is afraid
- Cannot have anaesthesia
- Is too ill
- Religious/philosophical barriers

Patient does not want surgery

- Is afraid
 - Talk, talk, talk.....

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 - Do without anaesthesia

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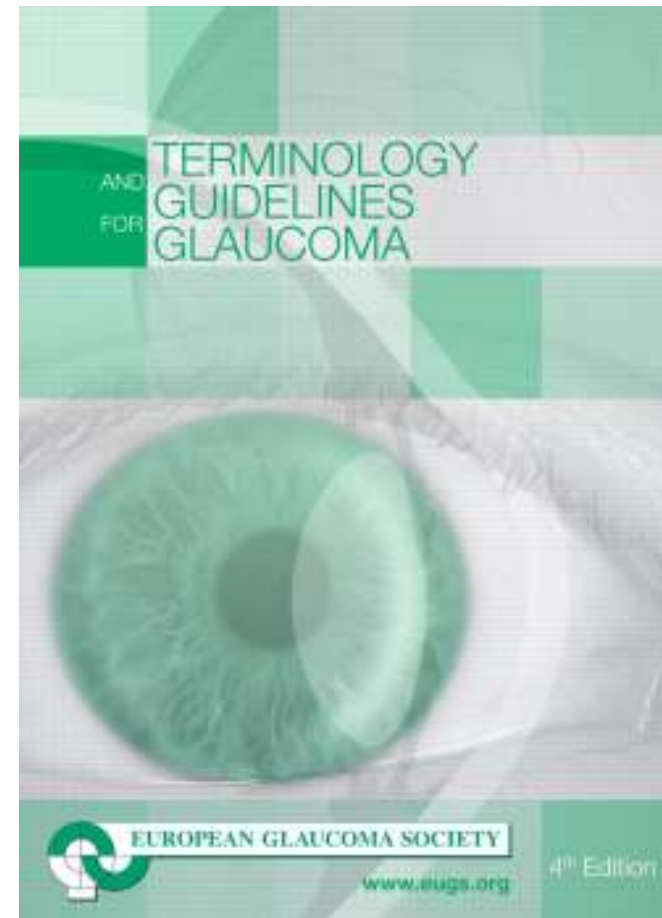
Patient does not want surgery

- Is afraid
 - Talk, talk, talk.....
- Cannot have anaesthesia
 - Do without anaesthesia
- Is too ill
- Religious/philosophical barrier
 - Talk, talk, talk, write, write,.....
 - Accept priorities!

Primary treatment goal in glaucoma

‘The goal of treatment is to maintain patients’ visual function and related **quality of life**...’

by lowering IOP, ...



Surgery has failed

- If really there is no other option
 - Systematically test medications
 - Consider „old options“
 - Consider medications partly unavailable
 - Consider systemic treatment with acetazolamide

Surgery has failed

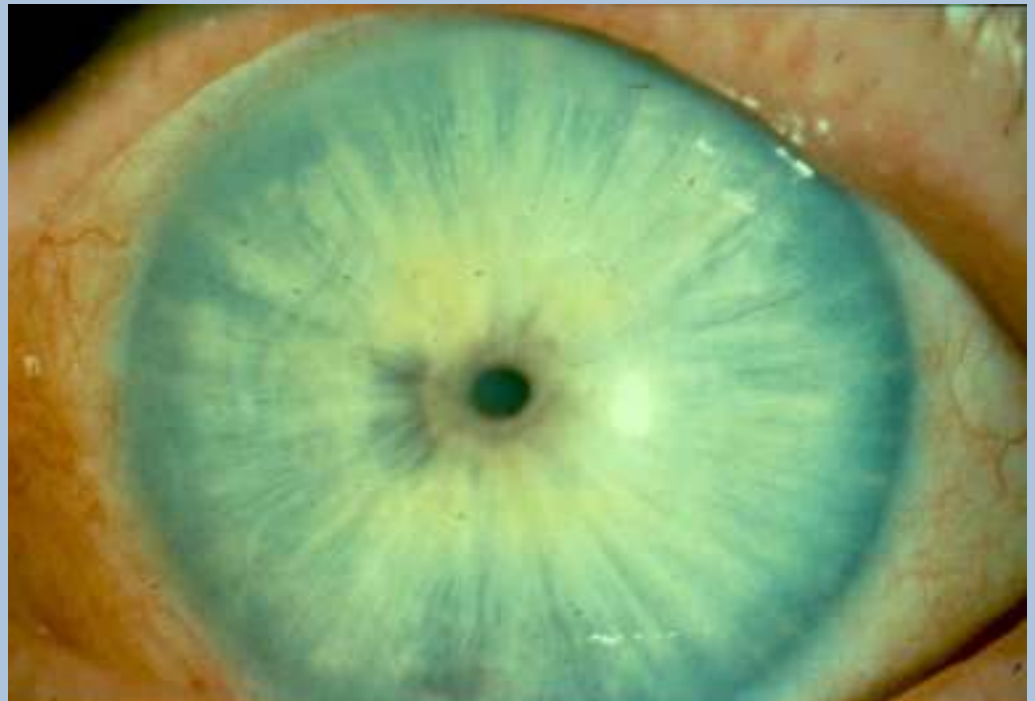
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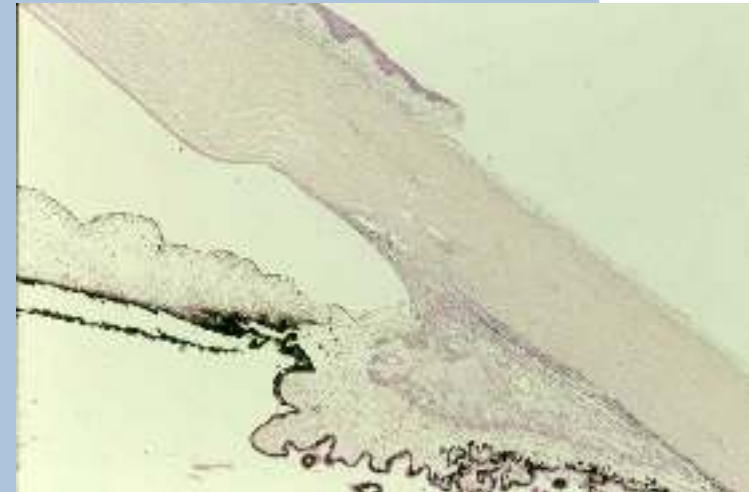
Para-Sympathomimetics

- Pilocarpine
- Physostigmine
- Carbachol
- Aceclidine



Para-Sympathomimetics (Pilocarpine)

- Pull at scleral spur; opening of trabecular meshwork
- Good mechanism
- Pilocarpine effective decades
- But
 - Miosis
 - Increase obstructive air-ways disease
- Indication: Pigment dispersion glaucoma



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Sympathomimetics (Dipivalyl-epinephrine)

- Stimulation alpha- und β -receptors
- Aqueous humor production reduced
- Glycosaminoglycanes reduced
- Outflow increased
- Indication:
 - Steroid-glaucoma
 - Pregnancy

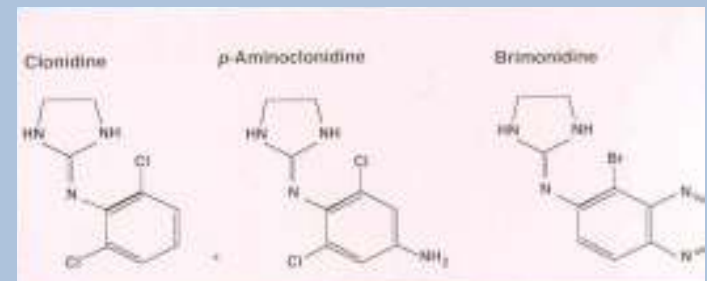


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Alpha-2-Agonists

- Clonidine
 - Systemic hypotensive agent
- Apraclonidine
 - To treat pressure spikes
- Brimonidine
 - Alleged neuroprotective properties



Topical Allergy



β-Blockers

- Timolol
 - Metoprolol
 - Metipranolol
 - Betaxolol (cardio-selective)
 - others
-
- Few local but serious systemic side-effects

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Carbonic Anhydrase inhibitors

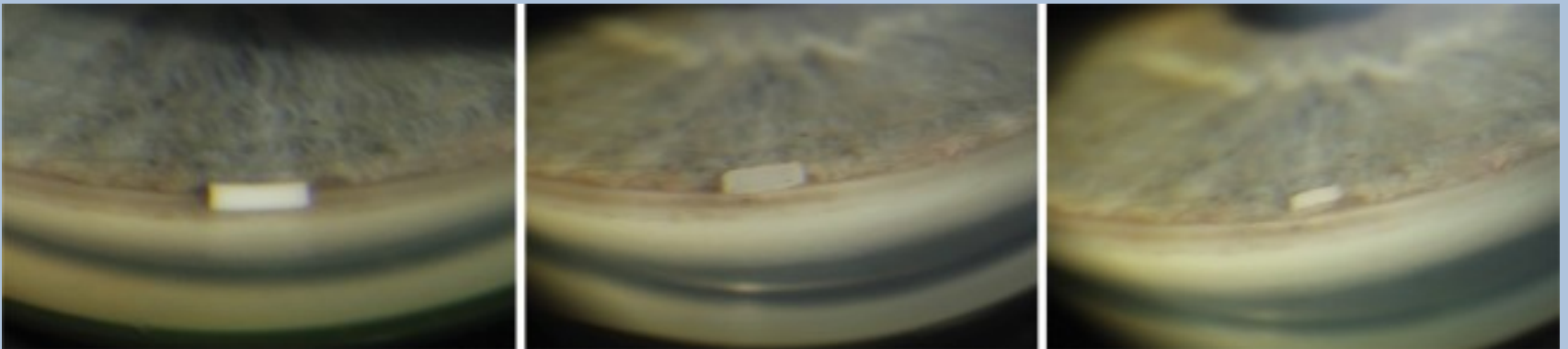
- Acetazolamide (systemic)
 - Start 3 x 67,5 mg
 - Increase to 3 x 500 mg
- Dorzolamide (topical) > twice
- Brinzolamide (topical) > thrice

Make treatment reliable

- If really there is no other option

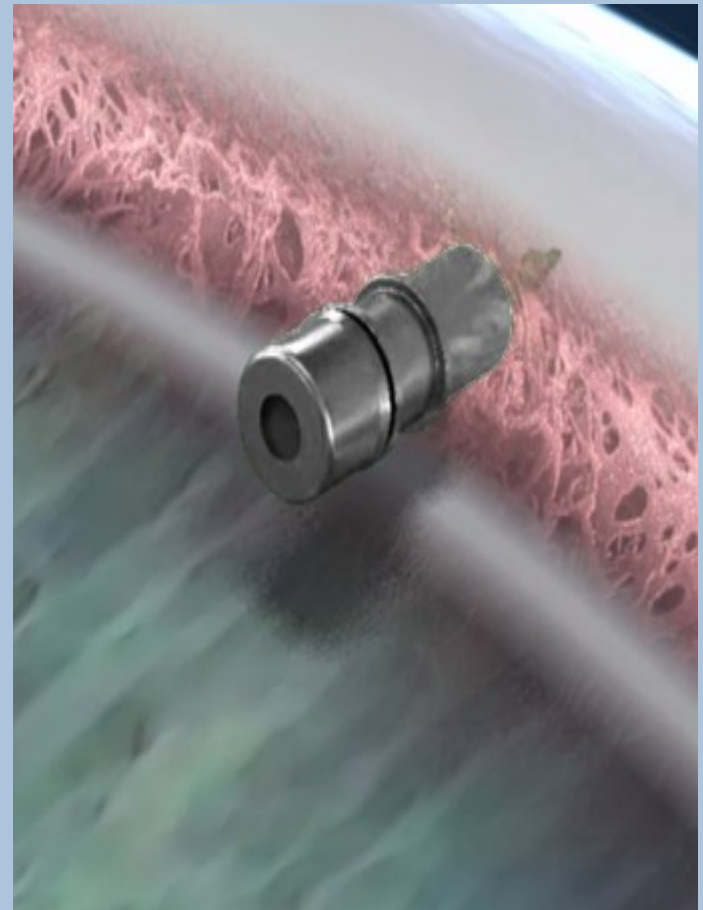
Bimatoprost Slow Release

- Injection into anterior chamber



i-Dose (Travoprost)

- Click to add Text



Make treatment reliable

- Administered by ophthalmologist

Make treatment reliable

- Administered by ophthalmologist
- Administered by family
- Administered by trained staff



Thank you for your attention