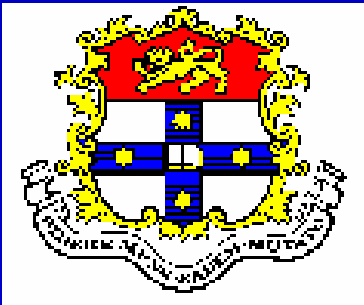


beyond convention – recent developments with SLT

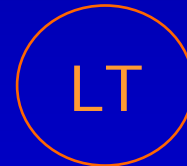
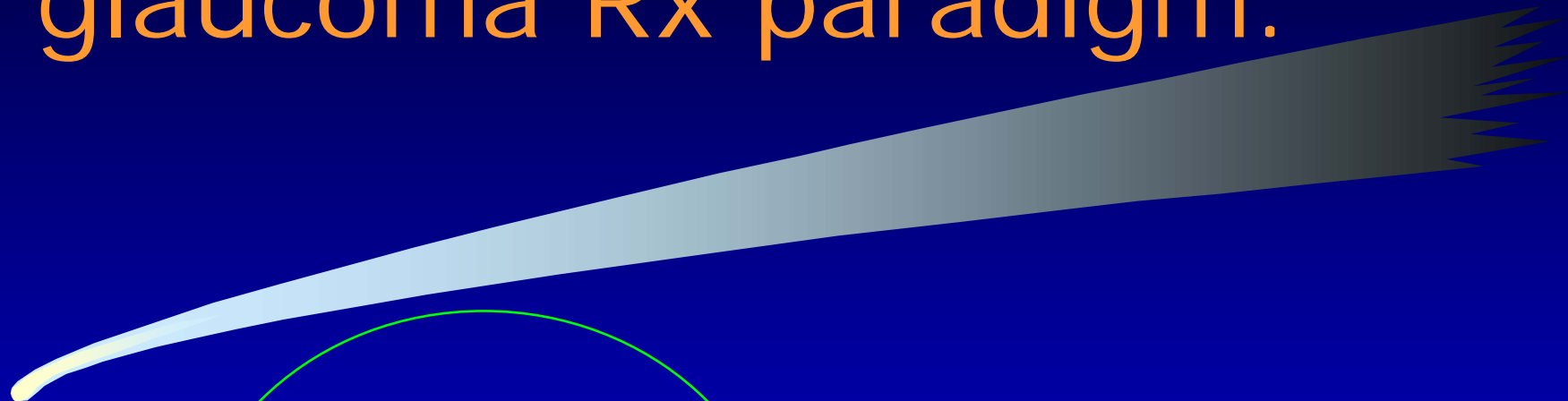
ivan goldberg

eye associates / sydney eye hospital

university of sydney



glaucoma Rx paradigm:



conventional glaucoma Rx paradigm

1. Medical therapy

- monotherapy
- fixed

“primum non nocere”
= “first do no harm”

2. Laser therapy

- argon laser trabeculoplasty; Selective laser trabeculoplasty

3. Incisional surgery

- penetrating; non-penetrating; “canaloplasties”

therapeutic index



benefit

harm

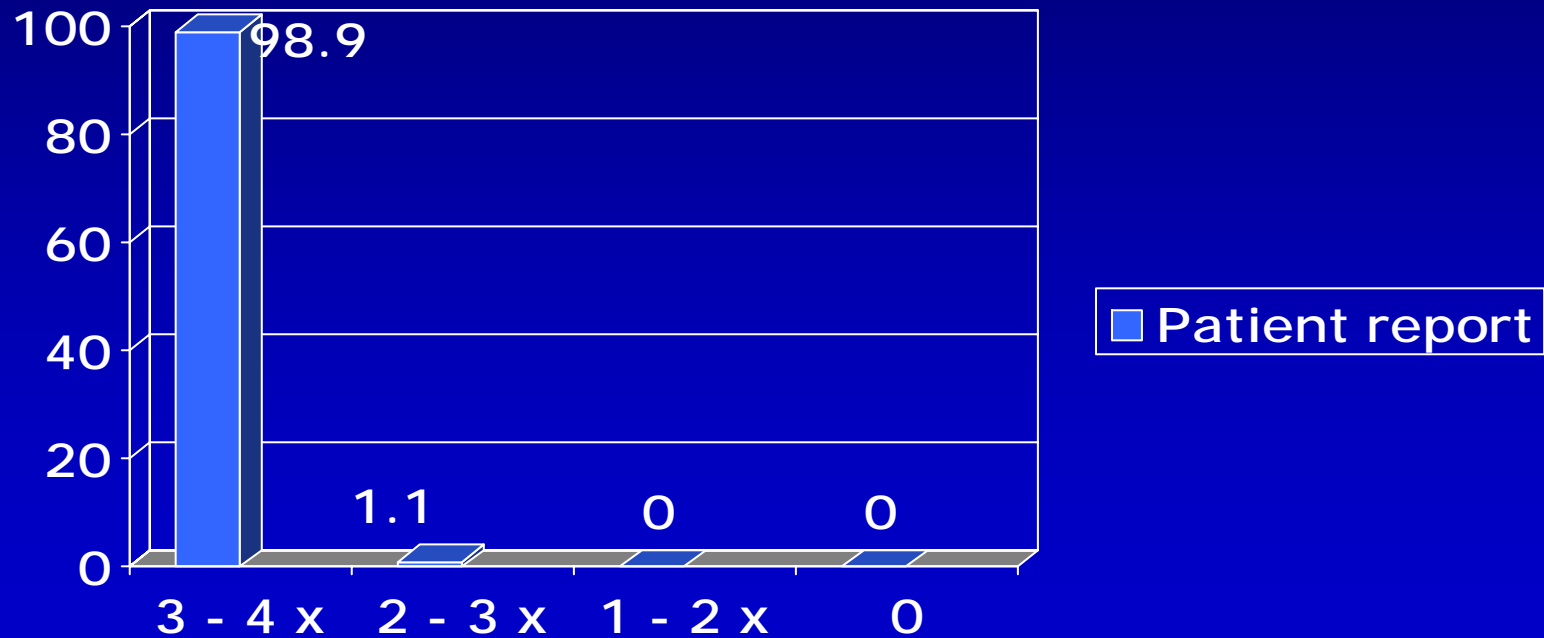


medical Rx – the problems

- quality of life – intrusion
- compliance / adherence
- persistence
- dyscompliance
- costs ongoing
- effectiveness
- side effects

compliance rates - measurements

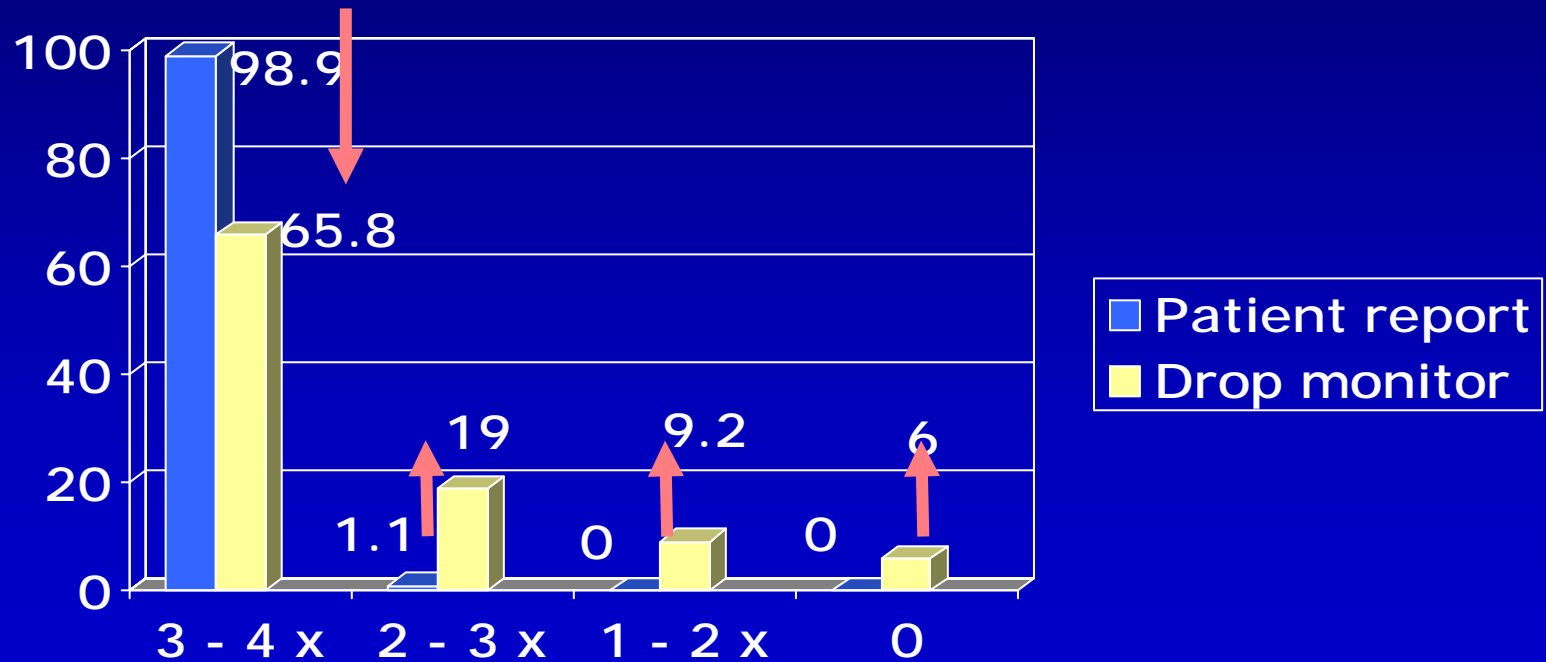
frequency of pilocarpine drop instillation (%)



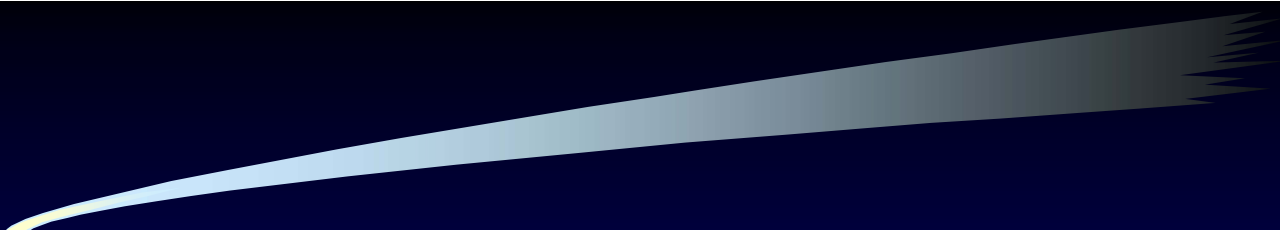
Kass, Gordon, Morley, Meltzer, Goldberg. Am J Ophthalmol 1987;103:188-93.

compliance rates - measurements

frequency of pilocarpine drop instillation (%)



Kass, Gordon, Morley, Meltzer, Goldberg. [Am J Ophthalmol](#) 1987;103:188-93.



compliance - conclusions

- patients generally do *NOT* do what they are supposed to do
- patients will *NOT* tell you reliably that they are not doing what they are supposed to be doing (partly because they don't want to disappoint you, partly because "how can you expect me to remember what I have forgotten to do?")

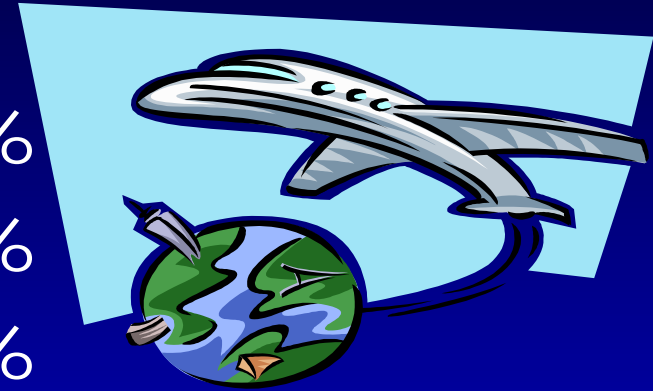
dyscompliance

- physical difficulties

- break seal
- open bottle
- tilt back head
- raise arm above shoulder height
- hold bottle steady
- express drop
- drop into sac
- avoid tip / eye contact
- avoid blinking
- NLD compression

instillation techniques

- tip – top 45%
- rammers 35%
- high-altitude bombers 15%
- head rollers 5%



Kass MA et al – 148 patients observed

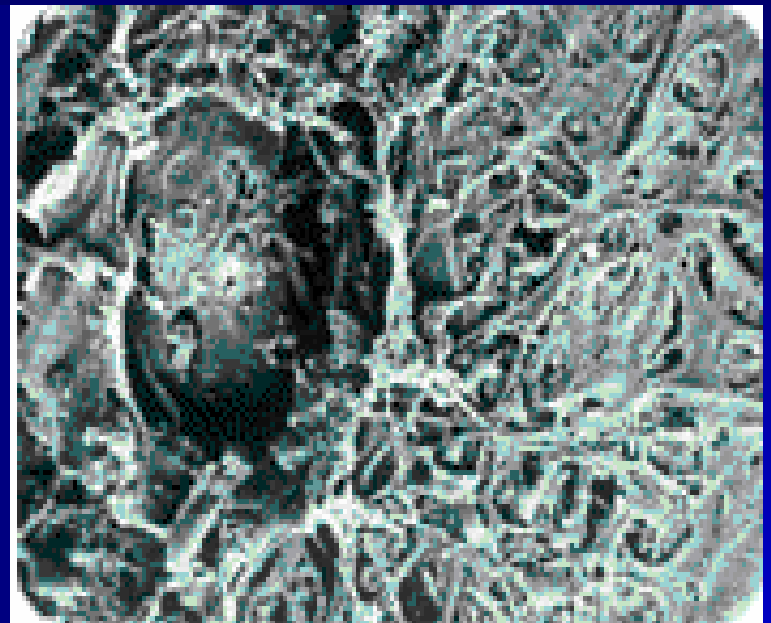
- 25% did not succeed
- 13% did not know they had failed
- 15% could not express a drop *AT ALL*

ALT

histology



Review of Ophthalmology, June 2003 p 69



Trabecular meshwork tissue after ALT



ALT – the problems

- limited efficacy on re-treatment
- potential for PAS => tissue damage
- contra-indicated in narrow angles / angle closure
- coagulative damage to TM
- post-treatment increase in IOP



surgical Rx – the problems

- failure to control IOP
- post-operative complications
 - short-term
 - long-term
 - cataract
 - endophthalmitis



what we know about SLT

- as effective as ALT / DLT
- as safe as ALT / DLT
- histologically safer than ALT / DLT
- titratable
- repeatable
- applicable to many eyes with angle closure



SLT

- broadens choices for clinicians / patients
 - timing during course of disease / management
 - range of treatable glaucomas
- can be considered over a wide range of management decisions

early management

later on in management

after long-term management

medical Rx

medical Rx
or / and
SLT

accelerate
medical Rx
SLT add-on
and/or
accelerate
medical Rx
repeat SLT

surgery

SLT add-on
or repeat
SLT



consider your options

"primum non nocere"

= "first do no harm"



consider your options

- as replacement for ALT / DLT
- initiation of hypotensive therapy
 - SLT or medical treatment
- acceleration of treatment
 - SLT or more medical therapy
 - repeat SLT

SLT – the future

