

# WHAT IS THE BEST WAY TO CORRECT VERY SMALL REFRACTIVE ERRORS?

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Schwind Vancouver 2014

# CLINICAL SITUATIONS

- Small primary refractive errors
- Enhancements  
Post cataract /RLE
- Enhancements  
Post LASIK, post PRK

# TREATMENT OPTIONS

- LASIK
- PRK with manual epithelial removal
- TransPRK with PTK
- PRK/PTK with manual epithelial removal

# CASES

- 2 primary LASIK
- 8 PRK manual epithelial removal
- 4 TransPRK with PTK
- 2 PRK plus PTK manual epithelial removal

# LASIK      1 second treatments

- CK    0/-0.5      aim 0      achieved 0    6/4  
*past cataract surgery*
- B H    +0.75      aim 0      achieved +0.5    6/6-  
*primary LASIK, result decayed, not happy*

# 8 PRK

## 1 to 3 seconds, manual removal of epithelium

- BW            -1.0            aim 0            achieved 0            6/4  
*past trans PRK myopic treatment initially*
- RP            -1.0            aim 0            achieved 0/0.5        6/6  
*past trans PRK myopic treatment initially*
- TU            -0.5            aim 0            achieved 0            6/4  
*past cataract surgery*
- KW            -0.75           aim 0            achieved 0            6/6  
*past PRK later cataract surgery*
- SM            +1.00/-1.5      aim 0            achieved +0.5/-0.50   6/6  
*past LASIK hyperopic later cataract surgery*
- GW            -1.5/-0.25      aim -2.00        achieved -1.75        6/6  
*past LASIK myopic treatment later cataract surgery*
- AM            -1/-0.25        aim -1.75        achieved -0.75/-0.75 6/6  
*past cat surgery*
- GM            -0.75            aim -1.75        achieved -1.00        6/6  
*past bilateral LASIK 2004 Myopic treatment*

# Trans PRK with 10 micron PTK

- Four post-cataract/RLE enhancements

PB -0.25/-0.75 target -1.50 achieved -2.00

PC -0.75/-0.50 target -1.50 achieved -1.75

GG -0.25/-1.50 target -1.75 achieved -0.50/-0.25  
*past RLE 2001, PRK 2002, 2008*

MT -0.50/-1.50 target -1.50 achieved -3.00/-2.00  
*inexplicable refractive surprise, solution piggyback IOL*

# PRK with PTK

## manual epithelial removal

VT +0.75/-0.50 aim 0 achieved 0  
*past PRK, epithelial erosions*

MP 0/-1.25 aim 0 achieved +0.5/-1.25  
*past cataract and transPRK, epithelial erosions*



# DISCUSSION

- Technology gives us the opportunity to pursue the perfection our patients want
- These cases illustrate that while results may be good it is difficult to be sure of accurate correction in all cases
- The group is complex many with history of LASER and /or cataract surgery

# WHAT IS THE BEST WAY TO CORRECT VERY SMALL REFRACTIVE ERRORS?

- All methods produce good results
- But inconsistencies do occur
- Need to consider past history in designing treatment
- Does our experience reflect other users experience
- Is it possible to treat more reliably?