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

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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
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

- BH +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

<table>
<thead>
<tr>
<th>Name</th>
<th>Initial Calibration</th>
<th>Aim</th>
<th>Achieved Calibration</th>
<th>Achieved</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BW</td>
<td>-1.0</td>
<td>0</td>
<td>0</td>
<td>0/4</td>
<td>6/4</td>
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<tr>
<td>RP</td>
<td>-1.0</td>
<td>0</td>
<td>0/0.5</td>
<td>6/6</td>
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<tr>
<td>TU</td>
<td>-0.5</td>
<td>0</td>
<td>0</td>
<td>6/4</td>
<td></td>
</tr>
<tr>
<td>KW</td>
<td>-0.75</td>
<td>0</td>
<td>0</td>
<td>6/6</td>
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<tr>
<td>SM</td>
<td>+1.00/-1.5</td>
<td>0</td>
<td>+0.5/-0.50</td>
<td>6/6</td>
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<tr>
<td>GW</td>
<td>-1.5/-0.25</td>
<td>-2.00</td>
<td>achieved -1.75</td>
<td>6/6</td>
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<tr>
<td>AM</td>
<td>-1/-0.25</td>
<td>-1.75</td>
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<tr>
<td>GM</td>
<td>-0.75</td>
<td>-1.75</td>
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<td>6/6</td>
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</tr>
</tbody>
</table>

*past trans PRK myopic treatment initially*

*past cataract surgery*

*past PRK later cataract surgery*

*past LASIK hyperopic later cataract surgery*

*past LASIK myopic treatment later cataract surgery*

*past cat surgery*

*Mixed results 4 myopic treatments Great Hyperopic and mixed astigmatism results are not so good*
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


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
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.
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?