Unusual Contact Lens Cases

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Case # 1

- Simple PKP fit
Patient CJ

- Referred by corneal specialist for evaluation of contact lens
- She had fit CJ with RGP’s, but CJ unable to wear due to comfort
- CJ is post-op PRK
- CJ is 80 y/o, but sharp

Options:

- Refit RGP’s
- Piggyback RGP’s
- See what scl’s can do
- Other?

Patient CJ

- Referral included Rx:
  - OD: -2.50 -1.25 x 172  20/50
  - OS: -2.00 -1.75 x 116  20/60
- Discovered CJ was post-op PKP, post-op lasik (performed after PKP), and post-op cataract extraction with IOL (performed before PKP)

Patient CJ

- Tried OD scl trial (Biofinity) -3.00
  - OR -2.75…..good! why?
- Tried OD scl trial (Biofinity) -5.75  20/25
- CJ thrilled with comfort
  - OD done……..

Patient CJ

- Tried OS scl trial (Biofinity) -5.50
  - OR +3.00 -4.75 x 113  20/20
- Tried OS scl trial (Biofinity toric)
  - -3.50 -1.75 x 110 (no rotation)
  - OR +1.00 -3.00 x .125  20/20
- Ordered trial Biof T -3.25 -2.25 x 120
  - What next??

Patient CJ

- Patient needs near Rx
- Has worn bifocals for many years
  - So……
- She wears bifocals over scl OD and scl toric OS
  - RX: OD: Plano  20/25
  - OS: +.75 -2.00 x 120  20/25+2
  - Note: I lowered cyl by .50 (+2.25 add)
Case # 2

- Can you do ortho-k with a soft contact lens??

Well.....yes, after RK

- RK patients have corneas that are greatly affected by oxygen permeability
- RK patients have corneas that are greatly affected by tear tonicity
- Typically they have different rx's am vs. pm
- (note) muro 128.5% prevents this
- The greater the number of incisions, the greater the effect

Patient SS......RK 19 y/ago

- Early presbyopia
- Rx OD -1.00 -.25 x 36
- RX OS -1.25 sph
- Past scl wearer
- Doesn't prefer glasses
- Favorite hobby.....waterskiing

Options??????

- SCL with readers?
- Distance RX, remove to read?
- Monovision? Good choice, but what about waterskiing
- Ortho-k with scl? What?
**Patient SS**

- Wears scl on OD for distance
- Any non-silicone hydrogel would work
- She has 8 radials.....perfect
- Lemme explain the above......

**Patient SS**

- After several weeks
- Refraction....OD -.25 sph
- Note cl was -1.50, why?
- She can now remove her cl for waterskiing etc and see well

**Case # 3**

- RGP as valuable diagnostic

**Patient RH**

- After several weeks
- Refraction....OD -.25 sph
- Note cl was -1.50, why?
- She can now remove her cl for waterskiing etc and see well

**Patient RH**

- RGP as valuable diagnostic

**Patient RH**

- 1 week post op cataract extraction with IOL, OD
- Patient is 20/40 best corrected OD
- Surgeon is concerned
- Refers patient to me for refraction check
- Says “if you can’t get better than 20/40, send him to Dr. xxxxx for a retinal check.”

**Patient RH**

- Refraction shows best corrected vision as 20/40
- I notice the patient has had a limbal relaxing incision
- This was performed during the cataract surgery to correct astigmatism
- It gives the spherical equivalent
- Works well if spherical equivalent is plano, not just post op

**Patient RH**

- Could the blur be secondary to the LRI?
- Or is it retinal?
- Retina looked OK to me (and to the surgeon)
- Hmmm.....how do you tell?
**Patient RH**

- I instilled proparacaine....
- I put an RGP on the OD....
- Overrefraction.....
- Vision? Clear 20/20
- I tell the surgeon.....not retinal (he’s confused)
- RGP great for evaluating corneal warpage

**Case # 4**

- Corneal surface irregularity

**Patient DN**

- 50 y/o male with Reiss Bucklers Corneal Dystrophy
- OS has had PTK
- Best corrected vision with glasses is good OS...20/25
- OS refraction: -3.25 sph
- Best corrected vision with glasses is poor OD...20/100
- OD refraction: +3.75 – 6.00 x 98

**Patient DN**

- What do you do?
- PTK OD? Patient says he’s not ready for that, what else can I do?
- RGP, with or without piggyback….poor comfort, but 20/30 vision.
- He’s tries to “get used to it”
- Not working for him
Patient DN

- I put a high power scl (Biomedics) on OD, +6.00
- I overrefract....-3.00 -300 x 100
- 20/25-3
- Why did I overcorrect his hyperopia?

Patient DN

- Reason # 1: to reduce the anisometropia
- Reason # 2: it masked cylinder as well as corneal surface irregularity

Case # 4 1/2

- DN’s son BN

Patient DN’s Son, BN

- 28 y/o male
- Reiss Buckler’s Corneal Dystrophy
- Refraction OD: +.75 - 1.75 x 115 20/30
- Refraction OS: +1.75 – 1.00 x 136 20/30

Patient BN

- Fit with toric scl’s
- OD: +1.25 - 1.25 x 120 20/20
- OS: +2.00 - .75 x 130 20/20

Case # 5

- Contacts for Color Deficiency
Patient RV

- 25 y/o male with history of “color blindness”
- Unable to get position at work
- Ishihara color plates show red/green color deficiency
- 4 out of 14 plates identified correctly
- (note) he has red hair and a red car!

He has compound myopic astigmatism
- So I fit him with an X-chrome rigid contact lens
- He runs around the office all excited by his “new” vision (the fire extinguisher was fascinating to him)

Vision clear, but dim, as I put the “red” lens on his dominant eye
- I tried another set with the non-dominant eye wearing the red lens….he said it was much better
- Ishihara plates…..10 out of 14 correct!

Other options……
- If no astigmatism…..
- Chromagen (Y,M,G,P,A,O,V)
- Color Vision (by United Contact lens)….they charge $15 above your lens cost of an ocufilcon A lens

Photophobia resolved
**Patient SG**

- 18 y/o female recently diagnosed with Crohn’s Disease (chronic inflammatory bowel disease)
- She wears Acuvue 2 scl’s
- Very photophobic

**Patient SG**

- Slit lamp difficult because of photophobia
- No cells or flare
- No fixed pupil
- + lancet’s sign
- Dx: sub-clinical iritis secondary to Crohn’s Disease
- Treatment??

**Patient SG**

- Homatropine gives some relief
- Steroids were withheld
- Patient says photophobia “always there”
- I tried Nike Maxsights to see if any help
- She says they helped, but did have effect on color vision, mostly with amber, less with grey
- She decided to use them for any outdoor activities, as well as sunglasses
- Very happy…

**Case # 7**

- Fitting a scary cornea

**Patient RW**

- 38 y/o male referred by local OD to see if any cl could help reduce OS vision blur as well as anisometropia
- What???

**Patient RW**

- Patient had “Intacs” inserted into OU corneas for the correction of simple myopia
- Refraction OD: +.75 20/20
- Refraction OS: -.25 – 6.50 x 36 20/80
Patient RW

- Slit lamp reveals reason....

Patient RW

- Topo very irregular, unreliable
- Unable to wear glasses
- Tried trial RGP after proparacaine
- BC 45.00.....my usual if no other info helps
- Power -2.50 (it's what I had!)

Patient RW

- Power 2.50 (it's what I had!)

Patient RW

- Overrefract: -2.25 - 2.75 x 40 20/40
- Terrible fit....bubble superiorly, lens moves excessively....but good info
- The overrefract sphere indicates a flat BC of 43.00 (BC of cl was 45.00 and seems to be 2 diopters steep as evidenced by the overrefraction)
- I don't trust the steep BC using the same method

Patient RW

- I order a bi-curve bi-toric
- BC 44.00/46.50
- Power -1.25/-3.75
**Patient RW**

- Easy if taken one axis at a time
- Flat k.....43.00
- Rx -.25
- CL.....44.00 (1 D steep)
- CL power -1.25

**Patient RW**

- Steep axis k.....49.50 (or close to that!!)
- Steep RX -6.75
- CL steep axis....46.50 (3 D flat)
- Steep axis power -3.75
- Note: diameter 9.6

**Patient RW**

- CL ordered
- At dispense time.....I used proparacaine
- Lens showed some bearing across the 40 degree meridian
- Vision 20/20-3
- Patient happy with vision.....not so much with comfort

**Patient RW**

- 1 week follow up.....still poor comfort, but patient “determined” as his vision was much improved
- CL looked centered
- Overrefraction showed pl-.50 x 126
  20/20......cylinder was overcorrected, but acceptable

**Patient RW**

- 2 week follow up.....unable to wear more than 5 hours
- Time for piggyback.....
- AVO.....any power (I used a -2.00)
- Comfort much improved immediately
- Lens also showed less “rocking”

**Patient RW**

- 4 week follow up
- Patient wears cls 8-10 hours/day.....very happy, although some occasional blur corrected by blinking
Patient RW

- Dk not much of a problem
- Less mechanical trauma with piggyback