



Interesting Case of ICL Exchange

**We do not have
any financial interest in this presentation**

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Introduction

- ⦿ LRS - standard procedure for people having refractive errors who don't want to depend on glasses or contact lenses.
- ⦿ In extreme myopia, however, laser surgery isn't practical because too much tissue would have to be removed.
- ⦿ ICLs or Phakic IOLs are the alternative
- ⦿ ICL implantation is also not complication free. Some problems are
 - > Low or high vault (under or over sizing)
 - > Cataract, glaucoma (rare)

Purpose:

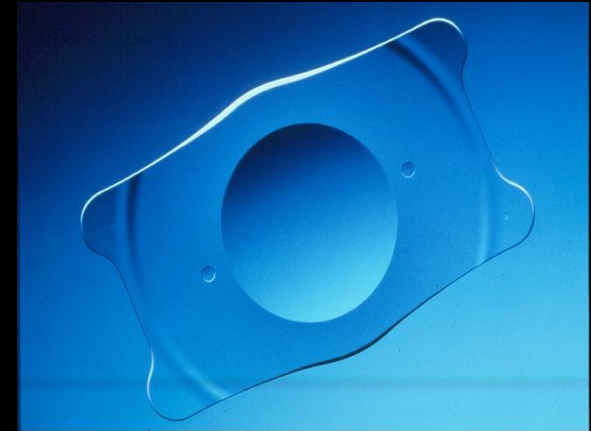
To see the result of ICL exchange in RE of one patient with myopia



Introduction

◉ What is ICL?

- Implantable Collamer Lens or better known as Implantable Contact Lens
- Made up of collamer



◉ Indication:

- Moderate to high myopia
- Thinner corneas
- Stable keratoconus
- In some cases of hyperopia

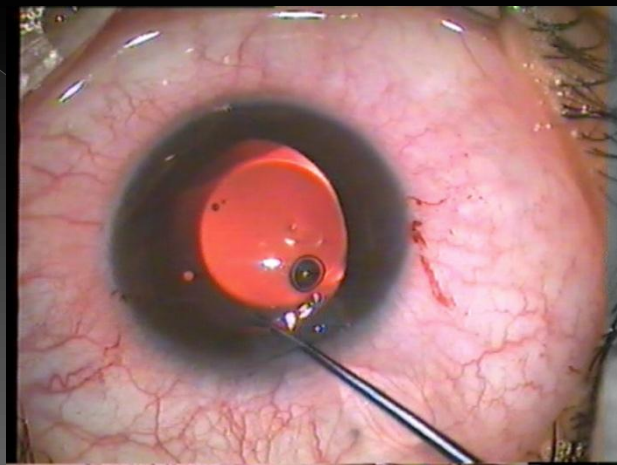
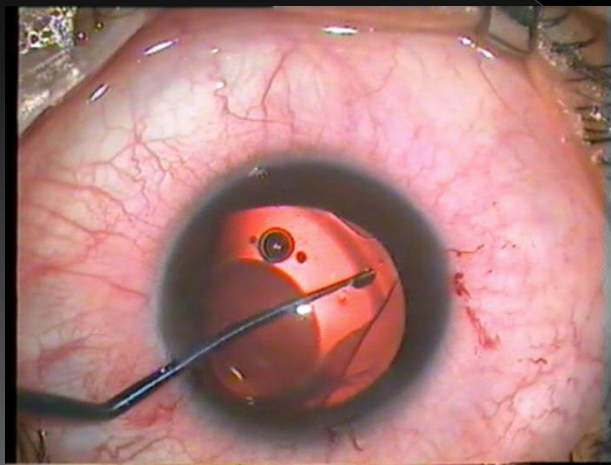
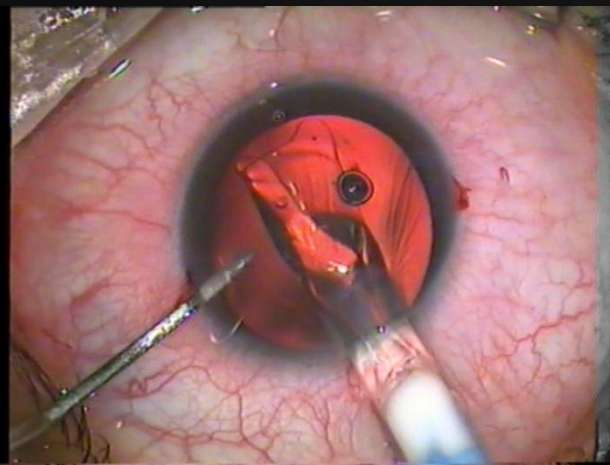


Method

- 30 yrs old male
- Bilateral myopia
- BCVA:
 - > RE: -11.0 Dsph / -0.5 Dcyl @ 20° – 20/30
 - > LE: -3.0 Dsph / 0.5 Dcyl @ 140° – 20/20
- Consulted for LRS
- Pachy:
 - > RE – 456 μ m
 - > LE – 439 μ m
- ACD (from Endothelium):
 - > RE – 2.80 mm
 - > LE – 2.85 mm
- Corneal diameter (clear corneal):
 - > RE: 11.20 mm
 - > LE: 11.20 mm
- Rest findings were within normal limits

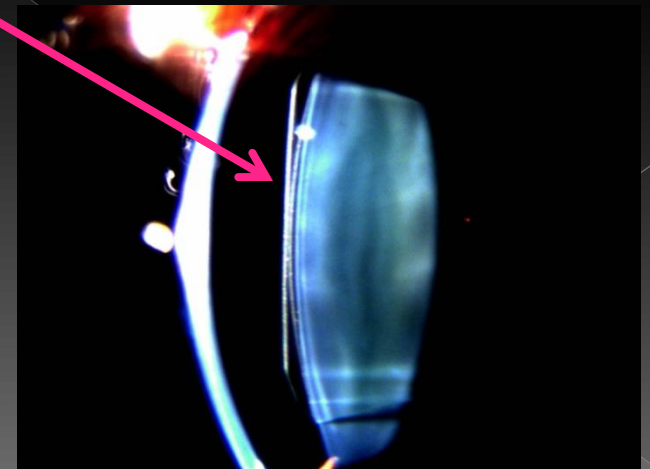
Method

- ◉ Advised ICL as LRS not possible due to insufficient corneal thickness
- ◉ Opted for RE ICL 1st due to economical problem
- ◉ Uneventful surgery performed



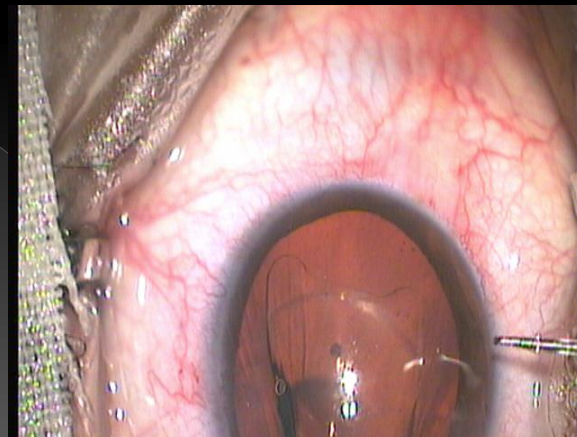
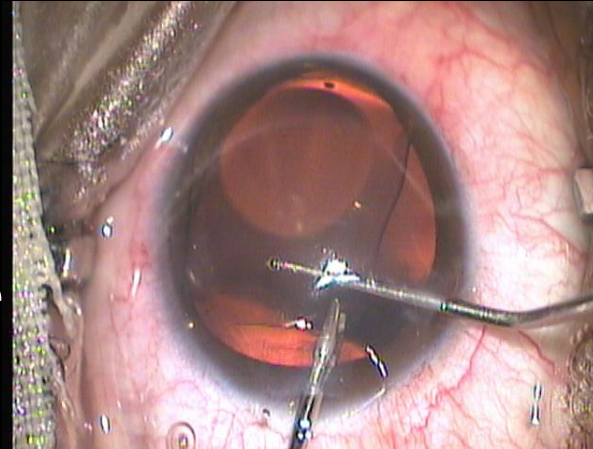
Post op

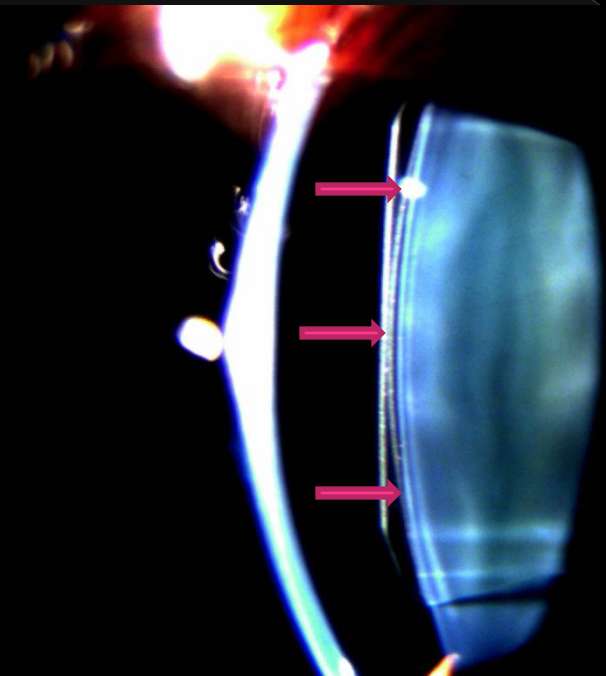
- ◎ 1 week:
 - > ICL in position with reasonable vaulting
 - > BCVA: 20/30 with plano
- ◎ 1 month:
 - > ICL touching the ant lens surface
 - > BCVA: 20/30 with +0.5 Dsph
 - > Near vision compromised
 - N/18, N/6 with +1.5 D add



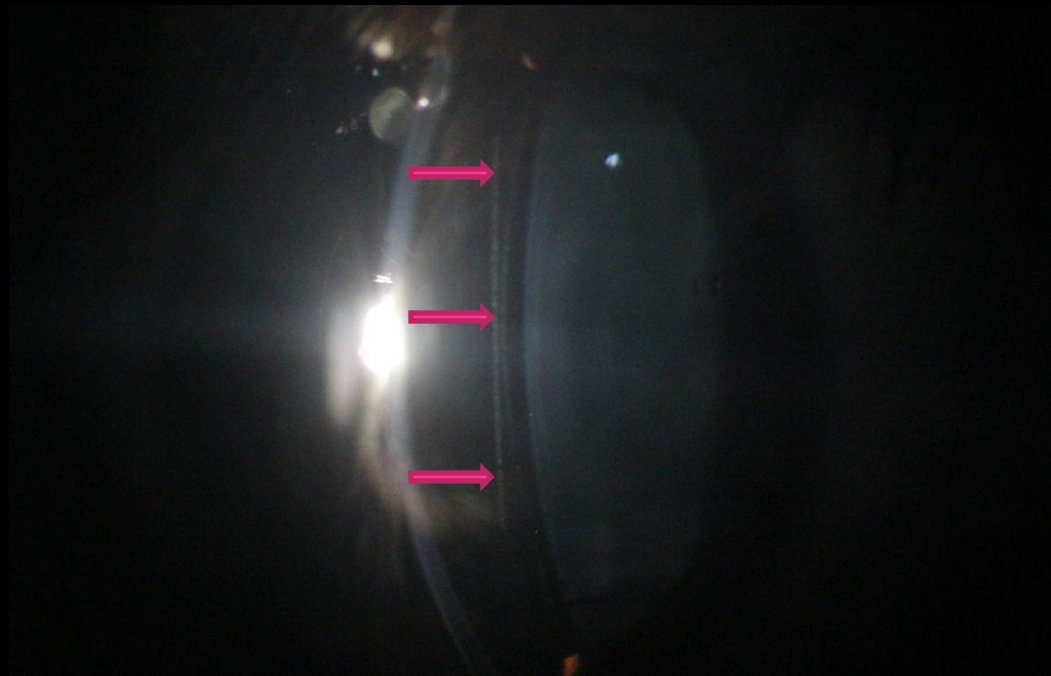
Result

- Patient was followed and observed for 7 months
- No improvement in vaulting (increase) noted
- Decided to exchange ICL with one size larger model
- Exchange of ICL was quite easier and didn't have any intraop or postop complication
- Patient was followed up for 6 months and the vaulting was good.
- However near vision is restricted. It is improving gradually though slowly with time.





Lens touch – low vault



Good vault – after ICL exchange



Discussion

- ICLs are very good alternative for LRS in cases of moderate to high myopia, thinner corneas, stable keratoconus, etc.
- It has high predictability, accuracy, safety and stability
- Gives high quality of vision (does not interfere with the shape of the cornea, no glare or halos)
- It is a better choice for high refractive errors
- Complete reversibility
- Limitations:
 - > Costlier
 - > Risk of cataract and glaucoma (rare)
 - > Infection (????)

Discussion

- ⦿ In this case, ICL touch occurred probably due to under sizing of the lens.
- ⦿ Repeat measurements were taken, though they were same.
- ⦿ A one size larger ICL was exchanged and resulted in good vaulting.



Conclusion

- ⦿ ICLs are very good option for correcting moderate to high myopia.
- ⦿ In one patient despite of thorough preop investigations, under sizing of ICL occurred.
- ⦿ However ICL exchange was done successfully and resulted in good vaulting.
- ⦿ One has to be very careful in preop work up so as to avoid such kind of problems

Thank You