




Are There dissatisfied patients after ICL implant? Who and why?


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Annual congress of Egyptian Ophthalmological Society
Refractive symposium: The unhappy patient after refractive surgery
Cairo 27/29 March 2019
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What is the EVO Visian ICL?

First: It's a phakic IOL




- 1- Keep the crystalline accommodation*
- 2- Avoid the complications of aphakia (DR, Irvin Gass)*
- 3- To be able to treat strong myopia / astig. without worry of major biomechanical and topographic embrittlement of the cornea.



EVO Visian ICL

Secondly: It's **foldable** Intra **C**ollamer **L**ens :


- None incision induced astigmatisme
- It's biocompatible


EVO Visian ICL

Thirdly: It's a **phakic posterior chamber implant**

*Far from the cornea
 *No support on AIC
 *In vault in front of the lens

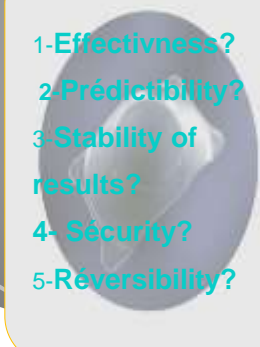


**Security / respect
of AS structures**





Why is the ICL going to give unhappy patients?

Insuffisant VA



- 1-Effectiveness?
- 2-Prédicibilité?
- 3-Stability of results?
- 4- Sécurité?
- 5-Réversibilité?

Complications



Undersizing:
Cataracte
T. Implant
rotation : post-op.
higher astigmatisme

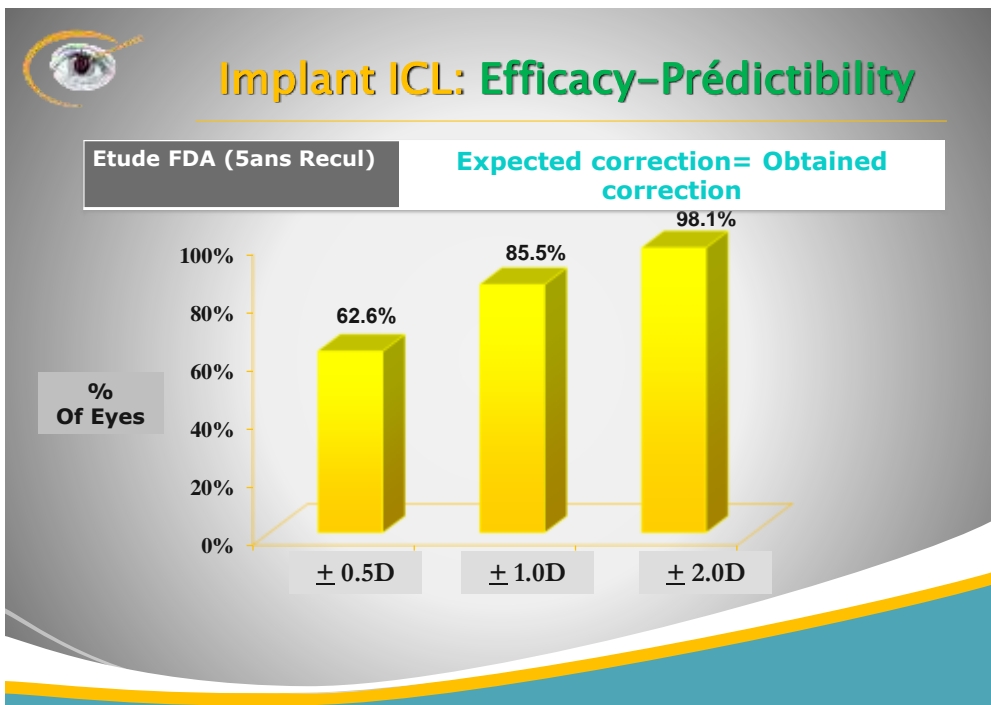
Oversizing:
IOP; pupillar
bloc, ICA closure

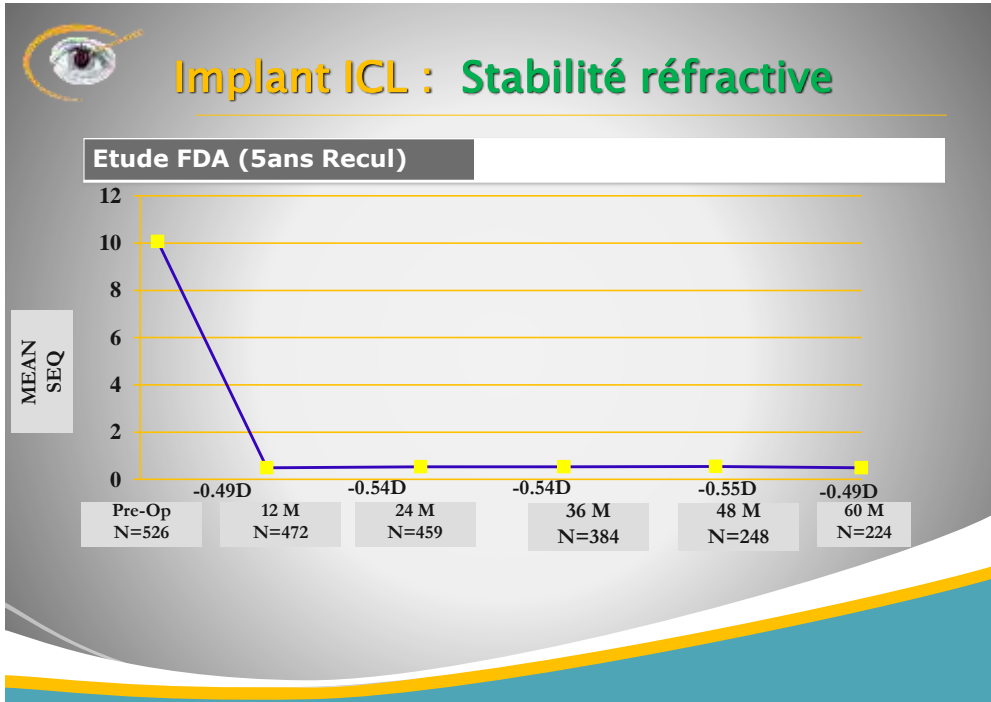
Quality of vision/life



HOA:
glare, halo..



Dry eye
syndrome post
refractive
surgery






Implant ICL : Sécurité/ Sizing

Cataracte/Rotation de L'ICL/HTO

Unhappy patients:



Gimbel :

- cataracte 1,6%
- changement ICL 2,3%

FDA :

- opacités asympt. 3,6%
- cataracte 1,3%

IOP/oversizing

0,6%


Cataracte :

- forte amétropie
- vaulting <

Exchange by smaller ICL




: ICL is an additive

Is there any solution to reduce those complications? And have less unhappy patients?



Implant EVO Visian ICL :New design

Last born ICL : **V₄C EVO Visian ICL**
V₄C : central micro-hole

No need to PI


Good vault , good stability
Direct and easy circulation of AH: respect of
crystallin metabolism = 0 cataract





Packer M. Meta-analysis and review: effectiveness, safety, and central port design of the intraocular Collamer lens. Clinical Ophthalmology. 2016;10:1059-1077.

- **1378 procédures implant EVO ICL (V4C):**
 - **efficacité/ sécurité**

www.themegallery.com



EVO Visian ICL efficacité



- 1- 69% – 100% UCVA 20/20 or better^{1,2,3}
- 2- Efficacy Index (Post-Op UCVA/Pre-Op BCVA) 1.00 – 1.03^{1,2,3,4}
- 3- 75 – 98.5% within ± 0.50 D MRSE^{1,2,4}
- 4- Refractive Stability¹: for the question: Is my myopia going to recharge?, The response is: NO

1. Lisa C, Naveiras M, Al chamber collagen cop year follow-up. J Catr
2. Alfonso JF, Lisa C, Fer Clinical outcomes aft lens with a central ho
3. Shimizu K, Kamiya K, chamber phakic intra Ophthalmol. 2012 Ma
4. Huseynova T, Ozaki S collamer lenses, 1 wit Jun;157(6):1136-43.

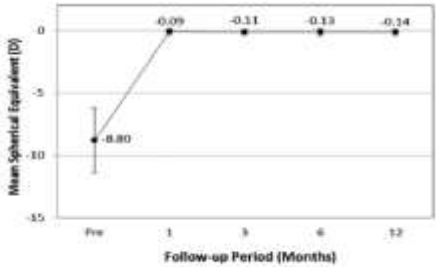



Figure 2. Time course of SE (stability) after pIOL implantation.

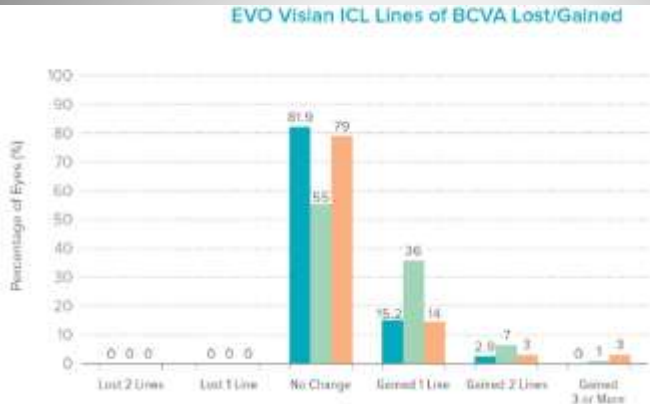
Alfonso JF. Posterior chamber myopia: One-

Montés-Micó R. Phakic intraocular lens;39(6):915-21. Correction of posterior high myopia. Br J Ophthalmol. 2014;97(12):1405-10.



Sécurité des implants ICL: Index de sécurité MAVC post-op/ MAVC pré-op


EVO Visian ICL Lines of BCVA Lost/Gained



BCVA Change	Alfonso, 2013 ²	Huseynova, 2014 ⁴	Lisa, 2015 ⁴
Lost 2 Lines	0	0	0
Lost 1 Line	0	0	0
No Change	81.9	55	79
Gained 1 Line	15.2	36	14
Gained 2 Lines	2.0	7	3
Gained 3 or More	0	1	3

Safety Index:
 (Post-op BCVA/Pre-op BCVA)
 -Alfonso, 2013: **1.01**
 -Huseynova, 2014: **1.14**
 -Lisa, 2015: **1.04**

6. Packer M. Meta-analysis and review: effectiveness, safety, and central port design of the intraocular Collamer lens. Clinical Ophthalmology. 2016;10:1059-1077.
2. Alfonso J, Lisa C, Fernández-Vega Cueto L, et al. Clinical outcomes after implantation of a posterior chamber collagen copolymer phakic intraocular lens with a central hole for myopic correction. J Cataract Refract Surg. 2013;39(6):915-921.
3. Huseynova T, Ozaki S, Ishizuka T, et al. Comparative study of 2 types of implantable Collamer lenses, 1 with and 1 without a central artificial hole. Am J Ophthalmol. 2014;157(6):1136-1143.
4. Lisa C, Naveiras M, Alfonso-Bartolozzi B, et al. Posterior chamber collagen copolymer phakic intraocular lens with a central hole to correct myopia: one-year follow up. J Cataract Refract Surg. 2015;41(6):1153-1159.



EVO – 5 years contralateral study

Conventional ICL vs. EVO¹ (5 year follow-up)

Safety	Conventional ICL	EVO
Cataract	3.1% (n = 1) (asymptomatic ASC)	0.0%
Pigment Dispersion Glaucoma	0.0%	0.0%
Pupillary Block	0.0%	0.0%
IOP (no signif change)	P = 0.35	P = 0.53
Endothelial Cell Density Loss @ 5 yrs (no signif change in ECD over 5 yrs)	P = 0.73	P = 0.59

During the 5 year follow-up period, Hole ICL was essentially equivalent to the conventional ICL in terms of safety, efficacy, predictability, and stability

¹. Shimizu K, Kamiya K, Igarashi A, Kobashi H. Long-Term Comparison of Posterior Chamber Phakic Intraocular Lens With and Without a Central Hole (Hole ICL and Conventional ICL) Implantation for Moderate to High Myopia and Myopic Astigmatism. *Medicine*. 2016 Apr;95(14):e3270.



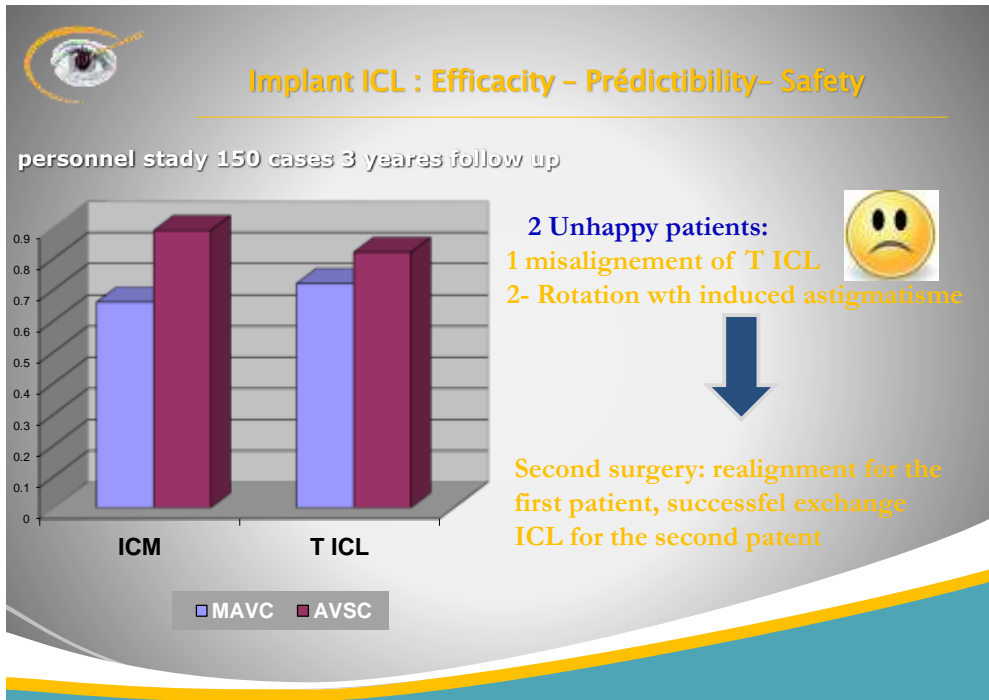
EVO Vision ICLV4C (aqua port)

1-Effectiveness
2-Predictability
3-Stability
4- Sécurité

Complications:
0 cataracte





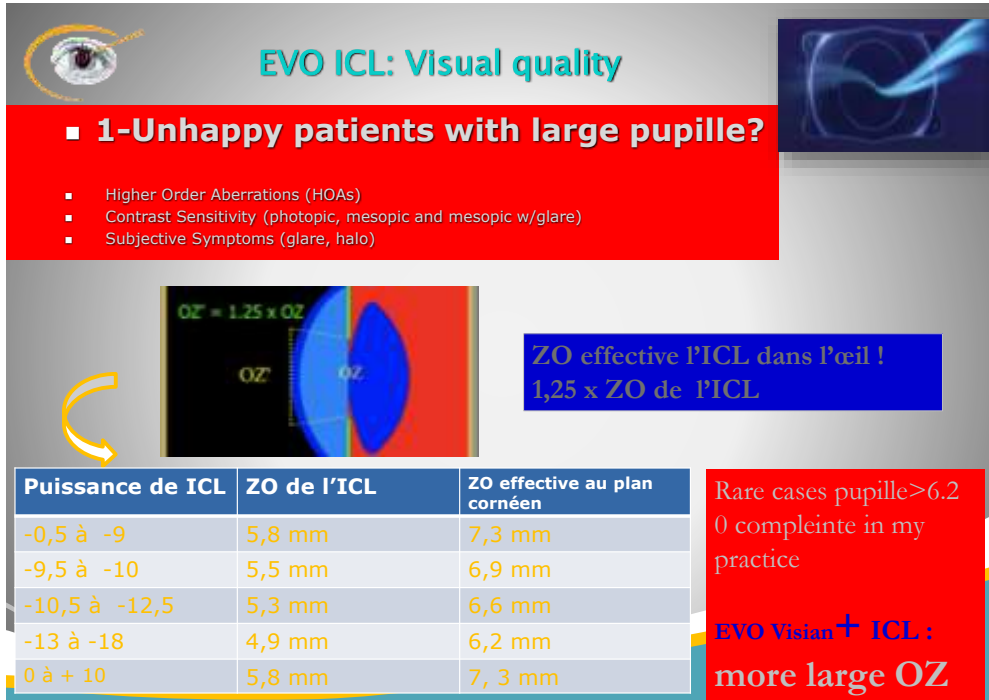



EVO ICL: Visual quality

- Prospective studies^{1, 2} have been conducted comparing outcomes between subjects implanted with V4c (EVO) and V4b (ICL without central hole):
 - Higher Order Aberrations (HOAs)
 - Contrast Sensitivity (photopic, mesopic and mesopic w/glare)
 - Subjective Symptoms (glare, halo)

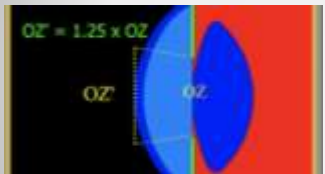
Quality of vision was equivalent between the V4c (EVO) and V4b (ICL without central hole) models

1. Shimizu K, Kamiya K, Igarashi A, Shiratani T. Intraindividual comparison of visual performance after posterior chamber phakic intraocular lens with and without a central hole implantation for moderate to high myopia. Am J Ophthalmol. 2012 Sep;154(3):486-494.
 2. Kamiya K, Shimizu K, Saito A, Igarashi A, Kobashi H. Comparison of optical quality and intraocular scattering after posterior chamber phakic intraocular lens with and without a central hole (Hole ICL and Conventional ICL) implantation using the double-pass instrument. PLoS One. 2013 Jun 25;8(6):e66846.



EVO ICL: Visual quality

- **1-Unhappy patients with large pupille?**
 - Higher Order Aberrations (HOAs)
 - Contrast Sensitivity (photopic, mesopic and mesopic w/glare)
 - Subjective Symptoms (glare, halo)



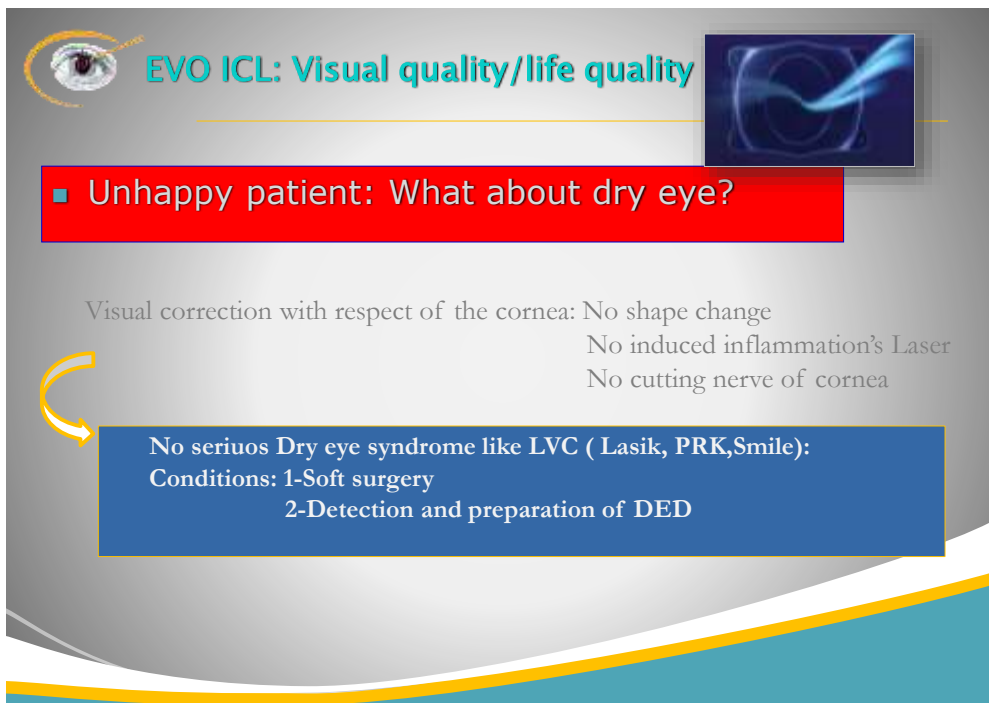
$OZ' = 1.25 \times OZ$

**ZO effective P'ICL dans l'œil !
1,25 x ZO de l'ICL**

Puissance de ICL	ZO de l'ICL	ZO effective au plan cornéen
-0,5 à -9	5,8 mm	7,3 mm
-9,5 à -10	5,5 mm	6,9 mm
-10,5 à -12,5	5,3 mm	6,6 mm
-13 à -18	4,9 mm	6,2 mm
0 à + 10	5,8 mm	7, 3 mm

Rare cases pupille > 6.2
0 complainte in my practice

**EVO Visian⁺ ICL :
more large OZ**



EVO ICL: Visual quality/life quality

- **Unhappy patient: What about dry eye?**

Visual correction with respect of the cornea: No shape change
No induced inflammation's Laser
No cutting nerve of cornea

**No serious Dry eye syndrome like LVC (Lasik, PRK, Smile):
Conditions: 1-Soft surgery
2-Detection and preparation of DED**

Case: intolerance of CL, MGD, -5 OD, -4,25 OG, normal topography

Evaporatif drye eye, MGD: before surgery

4 weeks MGD treatment+surgery

1 week post-ICL

The slide displays a series of images documenting the patient's condition and treatment. On the left, under 'Evaporatif drye eye, MGD: before surgery', there are two slit-lamp photographs of the eye showing dry eye and meibomian gland dysfunction (MGD), and two fluorescein staining images showing irregular tear film. Below these are four topographic maps (two for OD and two for OG) showing normal topography. On the right, under '4 weeks MGD treatment+surgery', there is a slit-lamp photo and a fluorescein staining image labeled '1 week post-ICL'. To the right of these are two more topographic maps for OD and OG, and two 'E' charts, indicating visual acuity testing.

T ICL expanded to keratoconus

January 2014-2019

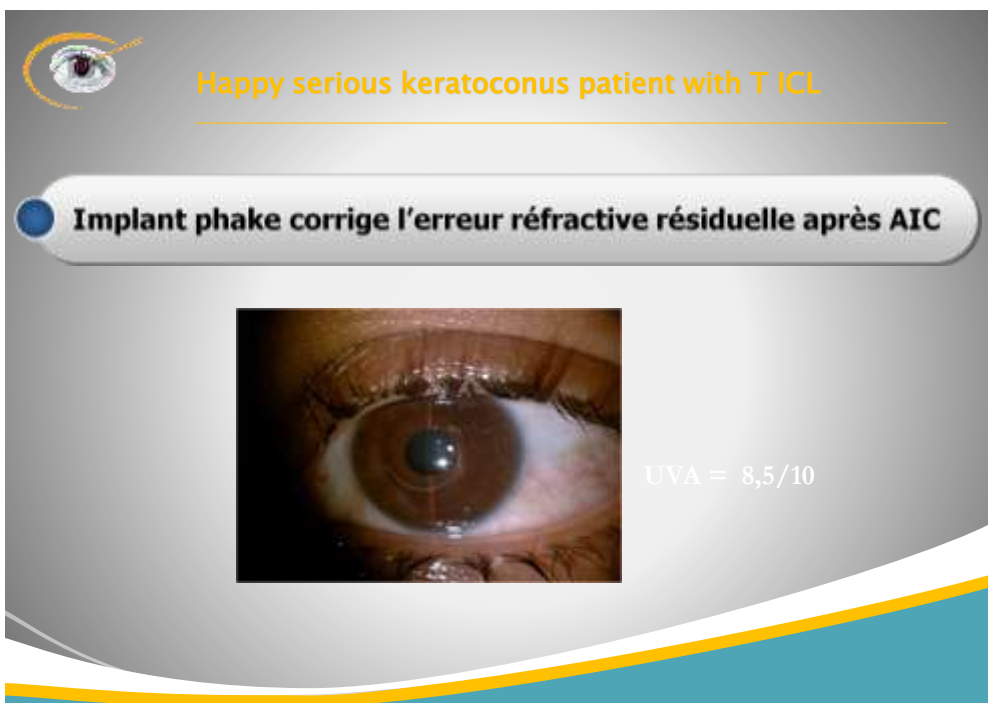
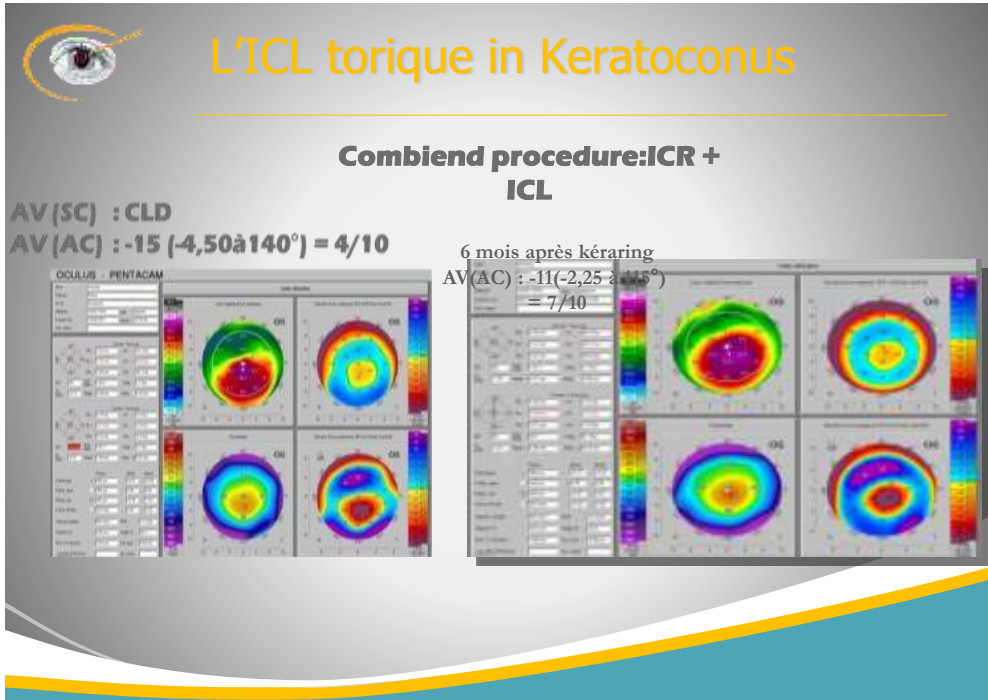
51 yeux


0 unhappy keratoconus patients

The pie chart illustrates the distribution of T ICL procedures for keratoconus patients. The data is as follows:

Category	Percentage
CI Lasik	66%
Kc avéré post anneaux	16.66%
Post greffe (sur Kc)	5.55%
Forte amétropie Kc débutant	16.66%

A cartoon smiley face with a thumbs up gesture is shown next to the text '0 unhappy keratoconus patients'.



Conclusion

The EVO Visian ICL have disassembled their effectiveness in correcting strong myopia, and whenever there is a doubt about the biomechanical fragility of the cornea.

Evo Visian ICL(aqua port) : High security and predictability , we expanded the indications at:

- Moderate Myopia
- Dubious cornea, high myopia: No frightening ECTASIA post LVC

Wide scotopic pupils : New version Evo Visian+ with large optical zone will be soon in the market, and EVO ICL pour presbyopia.

Rare unhappy patients



Implant phake CP EVO VisianICL V4C

- Leader** in The market **Asia**, américa, Europe and **Afrika**(Thin cornea and high rate of keratoconus, high incidence of OSD: DES and Allergy)



300 000 ICL
IMPLANTED/ 300 000 HAPPY WORLDWIDE



24th ESCRS Winter Meeting

MARRAKECH

In conjunction with SAMER (Moroccan Society of Cataract & Refractive Surgery)

21 – 23 FEBRUARY 2020
 Marrakech, Morocco



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