

Keeping it simple to the patient: from corneal GP to corneal GP.

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BACKGROUND

FIBA means ‘air’ in Muisca language. Muisca are an indigenous Amerindian people who have inhabited the center of Colombia, since approximately the 6th century B.C. FIBA is a 12.5mm posterior pentacurve interlimbal contact lens designed by ITAL LENT in 2010. The term was used to honour the benefits in the development of gas permeable materials that have allowed new cGP designs to flourish since their appearance.

INTRODUCTION

Living in a world in which trends lead many of our actions, decisions are sometimes taken based on spotlight information. ‘Our world’ is no different and our practice rooms are receiving more knowledgeable patients who inevitably will suggest a specific design or material for their contact lenses prescription.

Nowadays keeping things simple should be considered as a super-power. We have so many options that instead of ‘digging deeper’ we tend to ‘switch’, sometimes inspired by the patient’s suggestions, expecting extraordinary results. We decided to change the whole design maintaining its corneal nature in order to keep the patient’s eye care habits while improving comfort and visual acuity.

This poster presents a post radial keratotomy (RK) irregular cornea with an astigmatism of 16 diopters in each eye, which was successfully corrected with an intralimbal, back penta curve contact lens design. The patient has been comfortably using them for over two years without complications.

CASE DESCRIPTION

A 53 yo female patient presented for contact lens refitting in 2020. She had been using reverse geometry corneal gas permeable contact lenses (cGP) without success due to difficulty in positioning, which generated reflections, halos, low visual quality, and discomfort, limiting the hours of use. We decided to fit a 12.5mm cGP achieving an improvement in her VA, greater comfort, and more hours of use with respect to the previous design. In December 2022, she presented for lens replacement. There was no alteration of the ocular surface after two years of the fitting with an average daily use of 11 hours. A corneal design was selected over a scleral since she was familiar with the use and care of these lenses.

OCULAR BACKGROUND

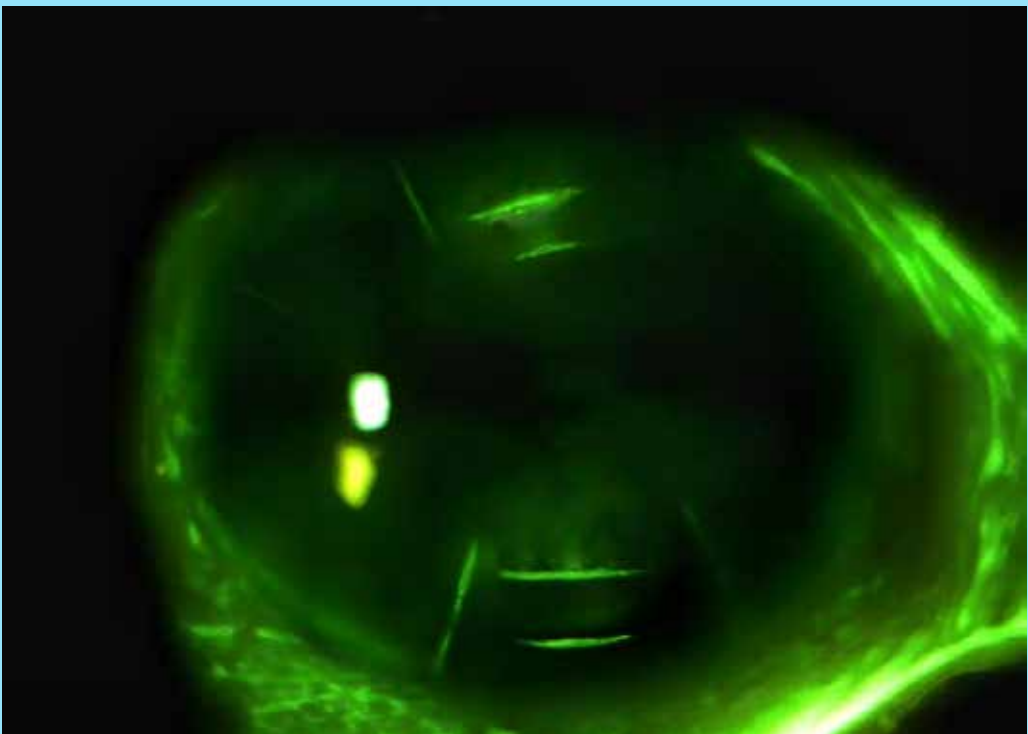
Post RK in both eyes practiced 30 years ago. Progressive VA reduction. Unsuccessfully wearing cGPs (halos, reflections, discomfort, reduced usage hours).

TESTING

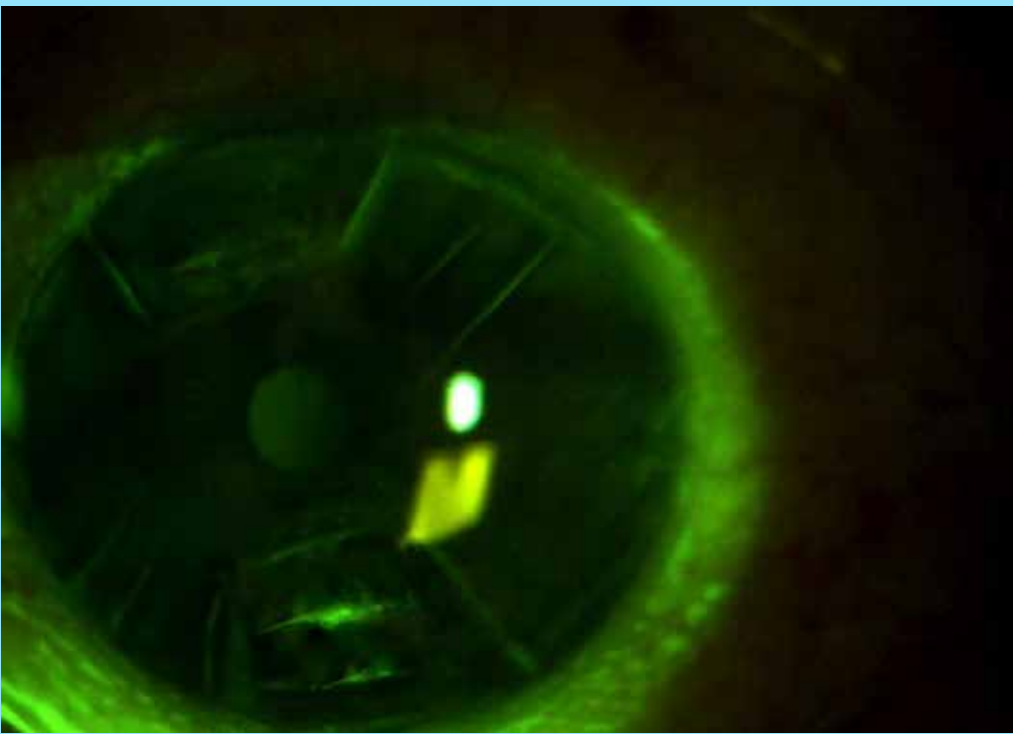
VA (WITHOUT CORRECTION) OD 20/150 -2M OS 20/150 -2M

BIOMICROSCOPY

In both eyes, a healthy external segment is observed, a bulbar conjunctiva with involvement, a cornea with scars from radial keratotomy due to astigmatism in the vertical meridian.



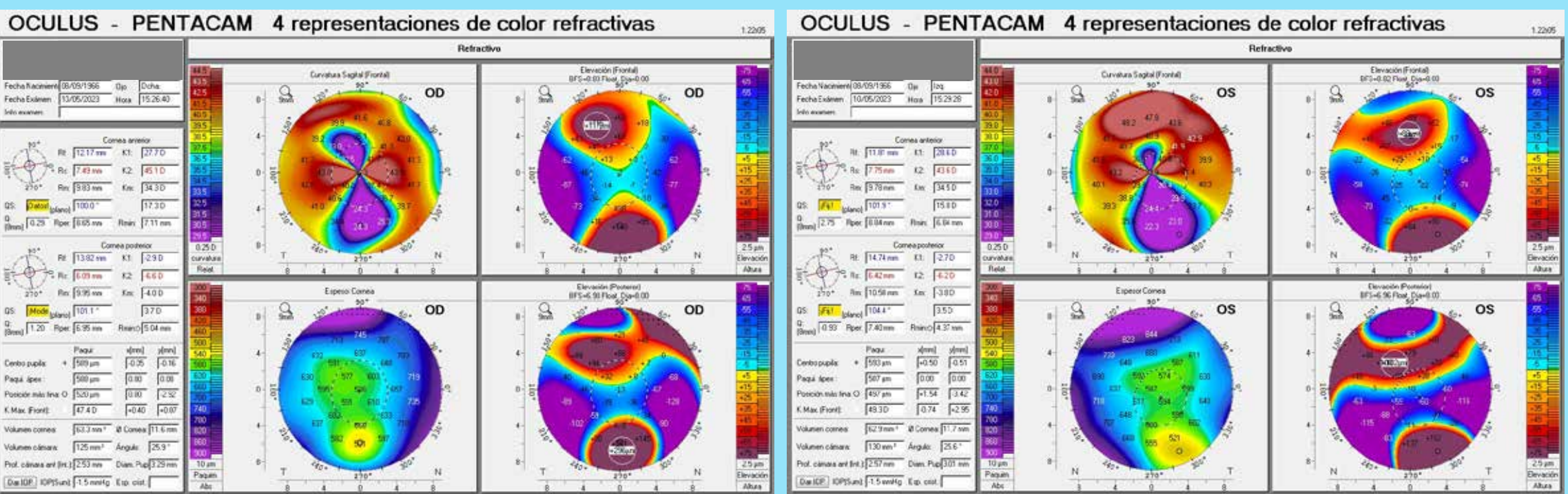
OD BUT 4S.



OS BUT 5S.

CORNEAL TOPOGRAPHY

In both eyes, high irregularity is observed in the cornea, excessively flat curves are evident in the central and lower paracentral areas, however, in both upper and lower peripheral areas, an increase in curvature is observed, which is evident in the elevation map.



Corneal astigmatism of 17.03 D.

Corneal astigmatism of 15.0 D.

EYE	KERATOMETRY	REFRACTION
OD	27,70 / 45,10 X 100	+13,25 -9,75 X 104*
OS	28,60 / 43,60 X 101	+8,75 -12,50 X 106*

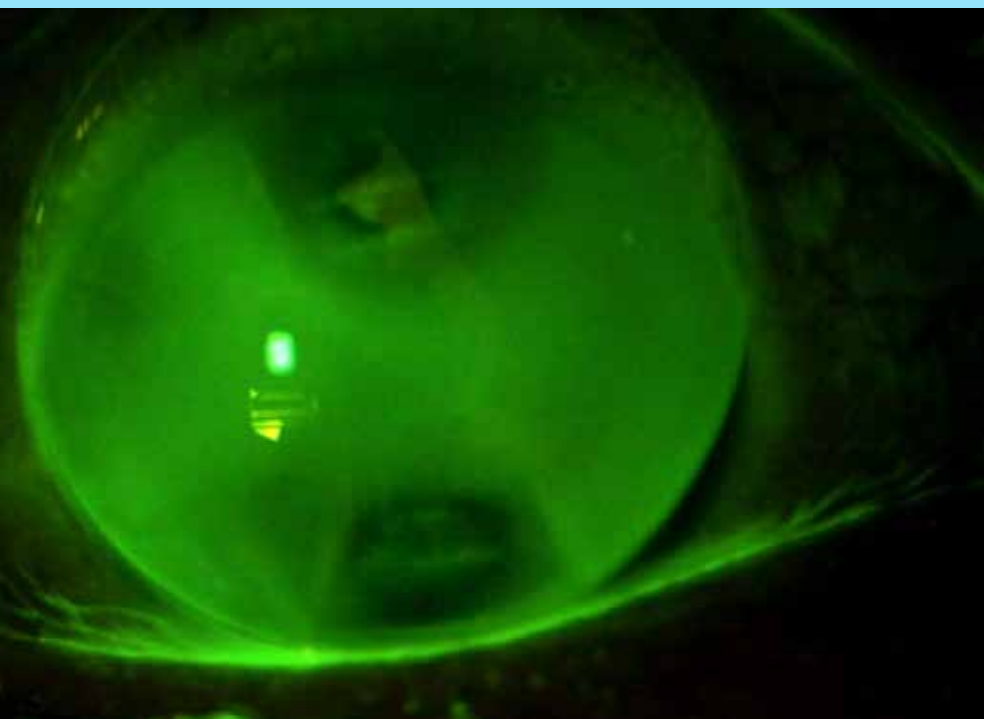
*There was no improvement in VA

Due to the high irregularity of the cornea and the symptoms expressed by the patient, it was decided to try an intralimbal design of corneal support in order to avoid care and use complications, taking advantage of her experience and therefore making it easier for her.

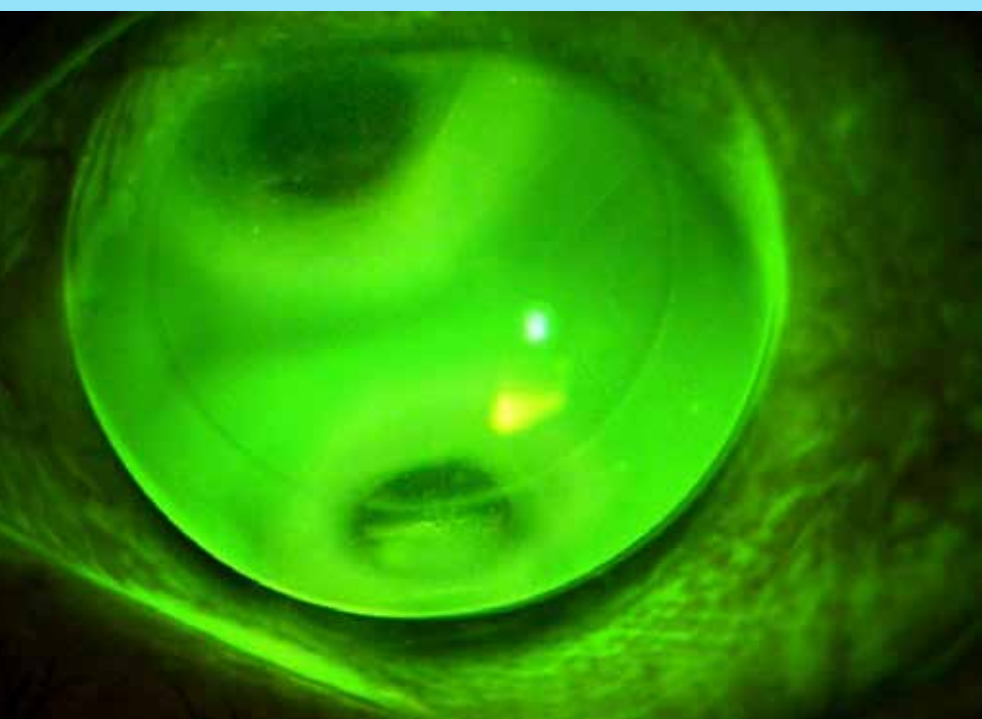
TRIAL LENSES: FIBA INTRALIMBAL PENTACURVE

EYE	BC	RX	Ø	Orx	VA
OD	8,60	-0,75	12,5	+0,50	20/30
OS	8,60	-0,25	12,5	-0,50	20/30

FLUOROGRAMS



OD



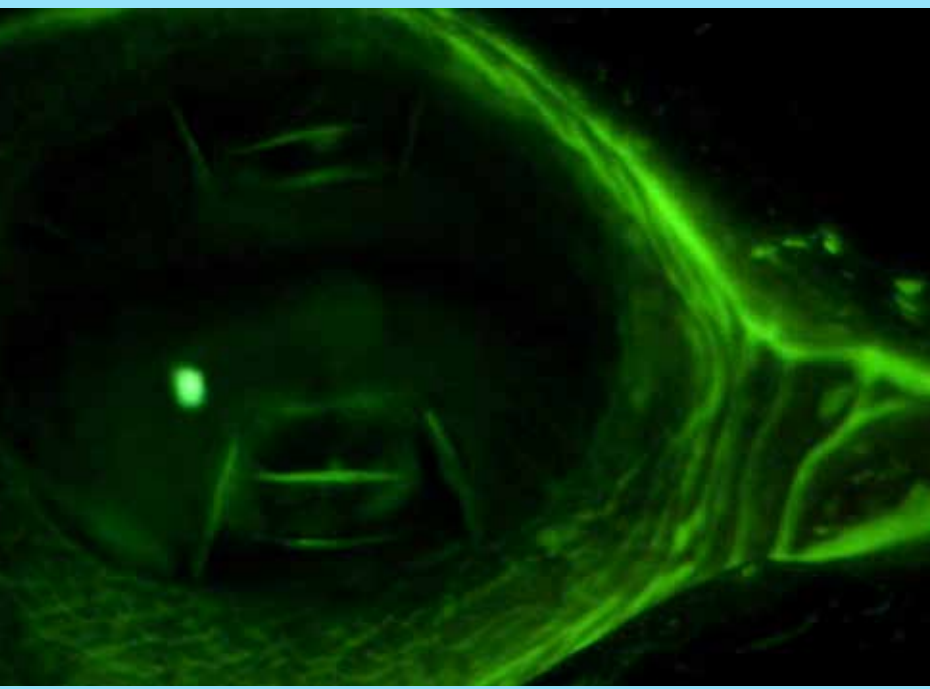
OS

In both eyes, a central and paracentral fluorescein cluster is observed, close-up in the upper and lower areas, in the highest areas of the cornea, good movement and tear exchange is observed with each blink. Position: upper eyelid retention.

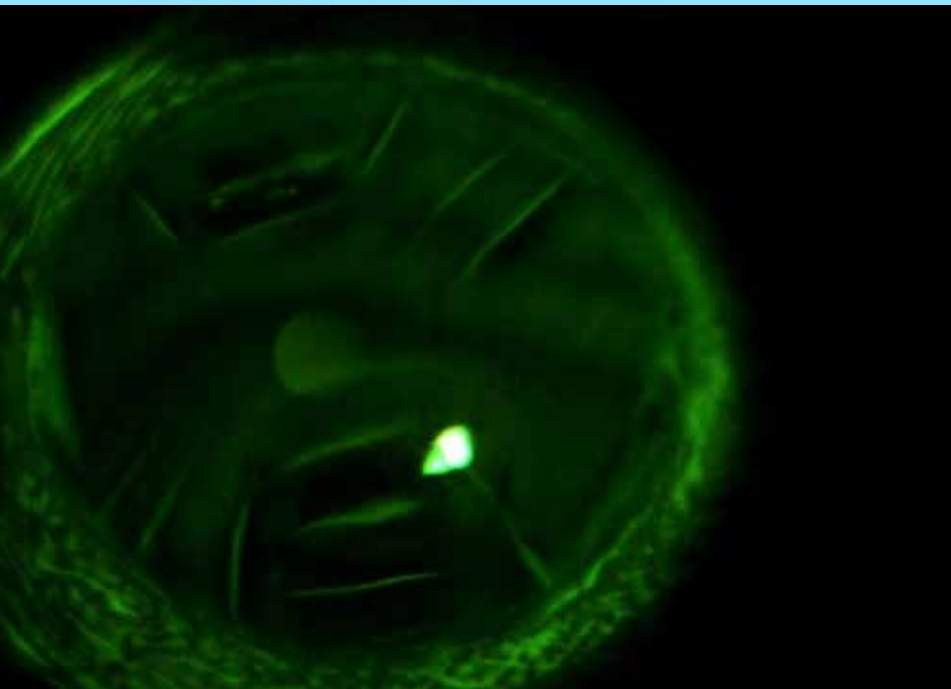
FINAL LENSES: FIBA INTRALIMBAL PENTACURVE

EYE	BC	RX	Ø	VA
OD	8,60	-0,25	12,5	20/30
OS	8,60	-0,75	12,5	20/30

In 2022 the patient returns for check up and to replace her lenses. When evaluated in biomeicroscopy, no alterations of the anterior segment are observed. Average of 11 hours per day with eye drops for the dry eye.



OD



OS

In biomeicroscopy no staining is observed in the lens approach areas. Neither superior nor inferior.

CONCLUSION

A good fitting is not always represented in an ideal fluorogram; we must understand that a lens is functional when it provides ocular health, gives the best visual acuity and offers comfort to the patient. This intralimbal and pentacurved contact lens design proved to be a successful alternative for correcting highly irregular Post RK corneas. Keeping it simple, safe and practical while maintaining the patient’s contact lens habits and economics. **From cGP to cGP.**