

Clinical update




**EPI-OFF CXL with  
RIBOCROSS te :  
one-year outcome**

Int Ophthalmol

(2024) 44:429

<https://doi.org/10.1007/s10792-024-03354-9>

ORIGINAL PAPER



**Epi-off riboflavin with vitamin E TPGS (Ribocross®) cross-linking: one-year outcome**

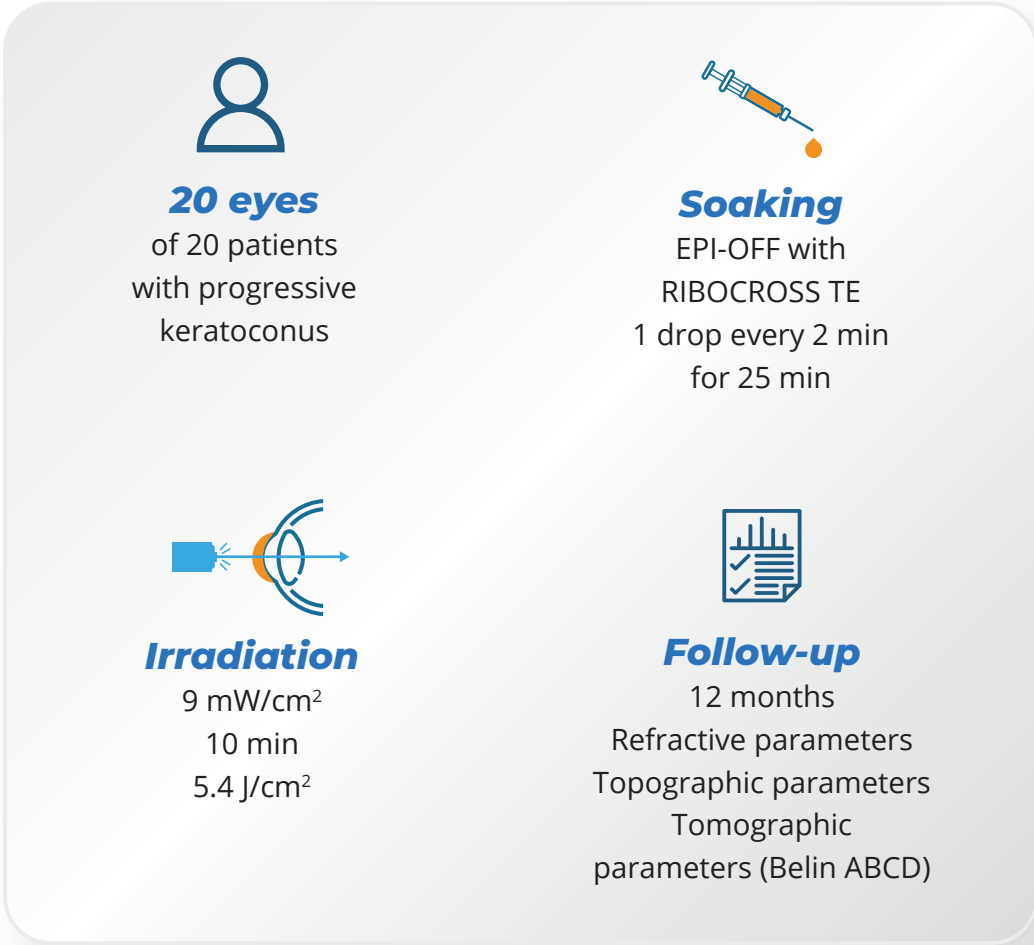
**Pietro Paolo Saba · Alessandro Feo · Luca Pagano · Paolo Vinciguerra · Riccardo Vinciguerra**

Pietro Paolo Saba · Alessandro Feo · Luca Pagano · Paolo Vinciguerra · Riccardo Vinciguerra  
“Epi-off riboflavin with vitamin E TPGS (Ribocross®) cross-linking: one-year outcome”. Int Ophthalmol (2024) 44:429.

Study goal

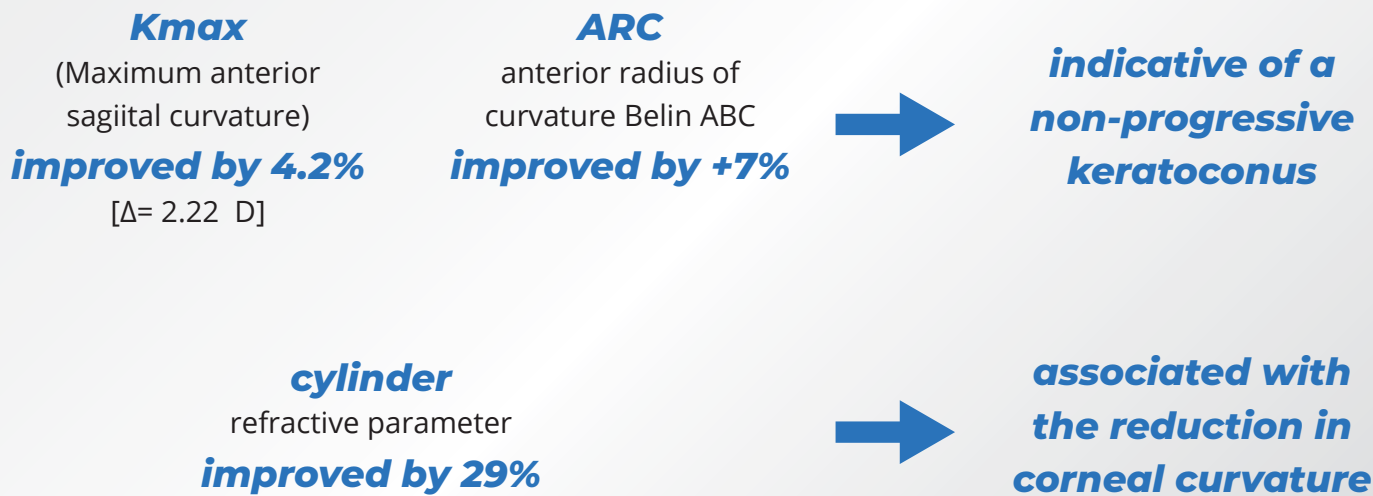
Retrospective, single-center non-comparative interventional study to assess the short and mid-term outcomes of epithelium-off (epi-off) corneal collagen cross-linking using Riboflavin with Vitamin E TPGS (Ribocross® te) for progressive keratoconus (KC).

Study design



**EPI-OFF CXL with RIBOCROSS TE stabilizes keratoconus progression at the 1-year follow up for all patients.**

The efficacy of the treatment is confirmed by the statistically significant variation in:



**EPI-OFF CXL with RIBOCROSS TE achieves a greater regularization of the corneal surface**

Enhanced regularization of cornea anterior surface after CXL indicates a reduction in keratoconus progression, with the following topometric indices variation:

**-12.35%**  
**ISV**  
Index of Surface Variance

**-13.86%**  
**IVA**  
Index of Vertical Asymmetry

**-3.25%**  
**KI\***  
Keratoconus Index

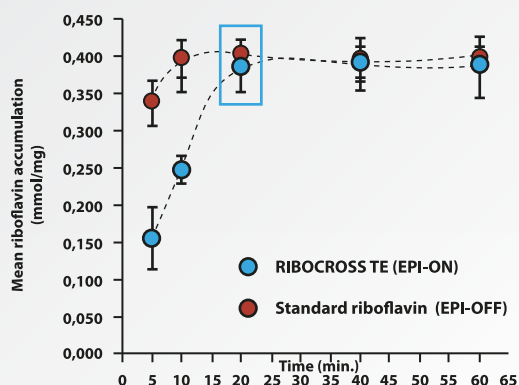
\* statistically significant data

## ***RIBOCROSS TE is a safe solution for EPI-OFF protocols***

- No adverse events or intra- and post-operative complications
- Stable 1-year results after accelerated EPI-OFF CXL



***Study results could suggest  
a stronger CXL effect  
due to the synergy of Riboflavin and Vit- E TPGS  
contained in RIBOCROSS TE***



***VE-TPGS is an ideal  
permeation enhancer  
to increase stromal penetration  
of riboflavin even in EPI-ON settings***

Vit E TPGS creates amphiphilic micellar structures, helping Riboflavin in reaching the deeper stroma.

# IROMED

THERAPEUTICS

**Iromed Group S.r.l.**

Via Tempio del Cielo 3/5, 00144 Rome (Italy)

Email: [info@iromedgroup.com](mailto:info@iromedgroup.com)

[www.iromedgroup.com](http://www.iromedgroup.com)