

# When to Fit in Scleral Contact Lenses: Infectious Crystalline Keratopathy after Corneal Cross-Linking

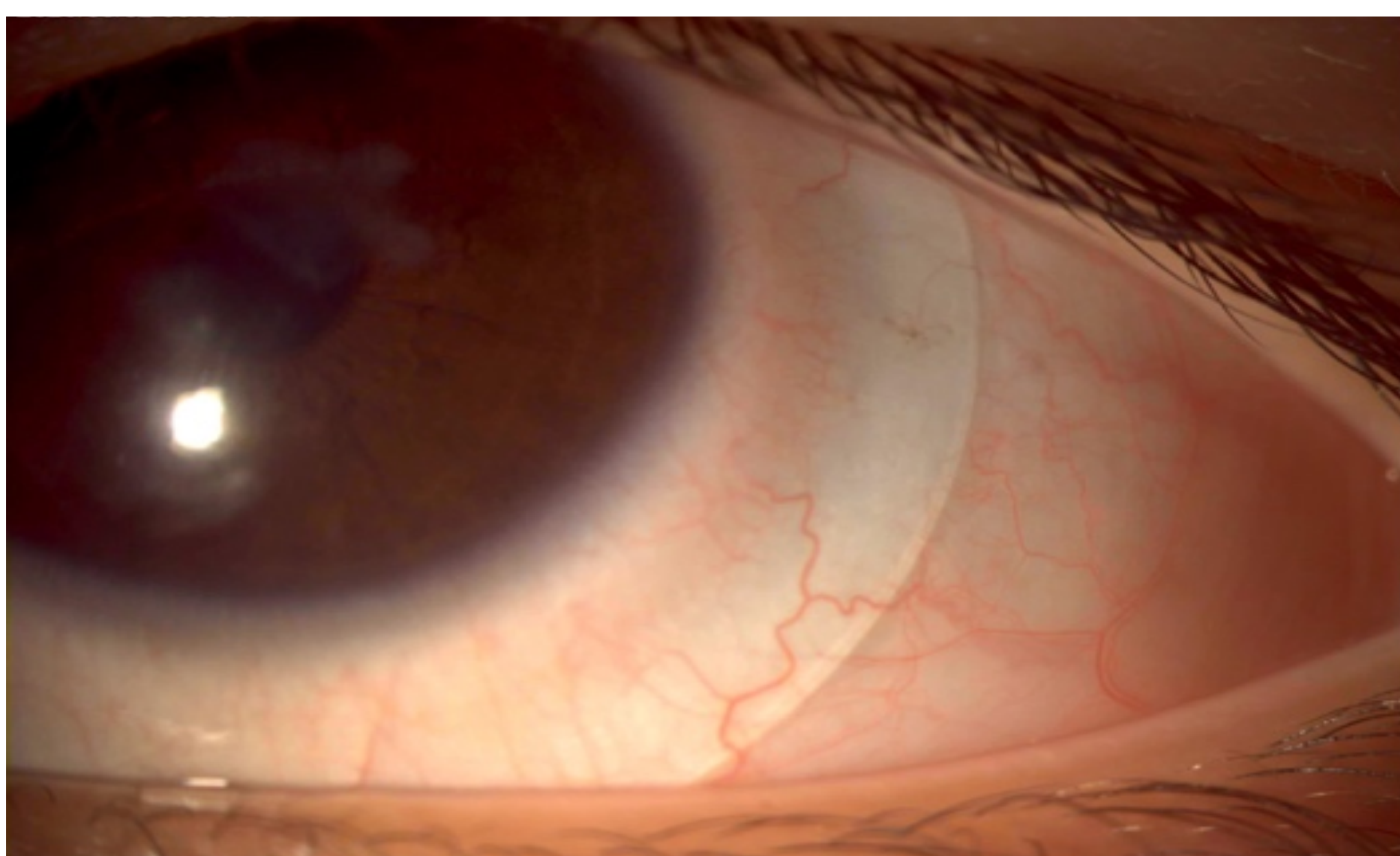
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## Background

- Crystalline keratopathy is most commonly caused by *Strep Veridans* and other gram positive cocci, with *Acanthamoeba* being the most common nonbacterial organism involved<sup>3</sup>
- Corneal crosslinking is a noninvasive medical treatment that uses the combination of ultraviolet A (UV-A) light and riboflavin (Vitamin B<sub>12</sub>) eyedrops. It is a widely accepted and safe treatment for progressive keratoconus.
- There are limited reports about scleral lens tolerance after cross-linking for keratoconus.



**Figure 1.** Haze, opacities, small branching lesion extending centrally, and appearing crystalline



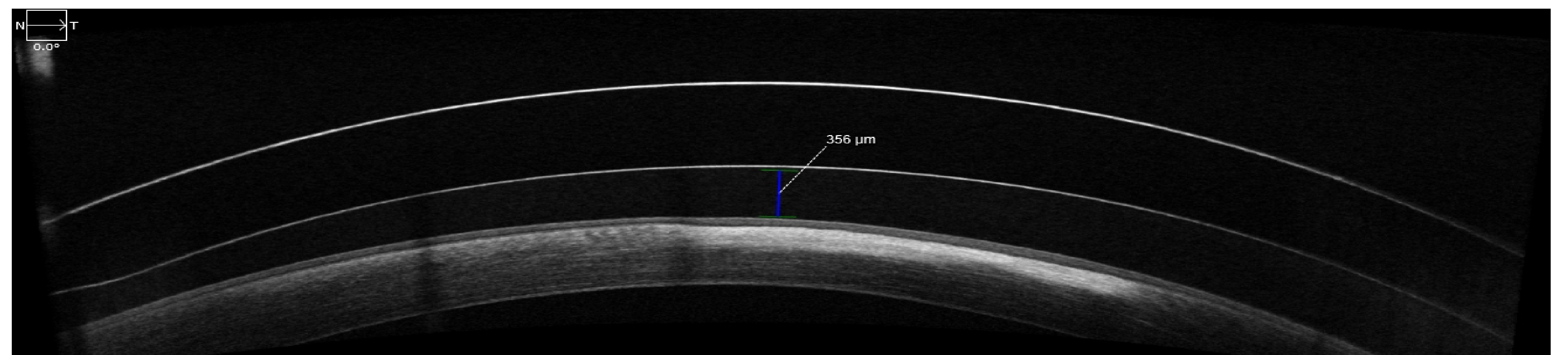
**Figure 2.** Patient after hours of wear in the 17mm lens in the post CXL and infection eye

## Case Report

- A 14 year old Asian male presented with a complaint of decreased vision in the left eye after being treated for crystalline keratopathy after corneal crosslinking for progressive keratoconus.
- BCVA OS 20/25 in a 17mm scleral contact lens.
- Significant lens awareness, even though fit of the lens was adequate. Patient tried to wear lens over 3 months.
- After another 3 month break, an 18.5mm scleral lens was refit and patient reported immediate improvement in awareness and comfort.

## Discussion

- There are limited reports about scleral lens tolerance after cross-linking for keratoconus.
- What are the obstacles of fitting a scleral contact lens following a post-operative infection.
- While the traditional post-operative no lens interval has been decreasing, this is an area that practitioners should oversee closely. Further research and studies need to be conducted on the optimal time to fit scleral contact lens after corneal crosslinking procedures, and when complicated by infection.



**Figure 3.** 18.5mm lens showing adequate central clearance

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