

# Long-term outcomes with Boston type I keratoprosthesis in ocular burns

## Resultados a longo prazo com a ceratoprótese de Boston tipo I em queimaduras oculares

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Dear Editor,

We read with great interest the article entitled “Long-term outcomes with Boston type I keratoprosthesis in ocular burns”<sup>(1)</sup>, in which the results of Boston K-Pro in 12 eyes was evaluated. The authors concluded that type I Boston KPro “is a continuous thread that may result in irreversible visual loss in this population.” The potential long-term complications of K-Pro are actually sight-threatening and sometimes irreversible, as reported by several studies, including one by our group<sup>(2)</sup>, which found that the retention rate was 85.71% in 33 eyes during a mean follow-up period of 56.1 months, similar to the report by Magalhães’ et al. and with a similar complication rate. Nevertheless, we need to stress that,

regardless of the risks of sight-threatening complications, these patients were blind, and after KPro implantation, their quality of life had improved significantly<sup>(1)</sup>. Therefore, even with the risks of serious complications, Boston type I KPro should be offered to these patients, with a complete understanding and acceptance of these potential risks of sight-threatening complications.

### REFERENCES

1. Magalhães FP, Hirai FE, Sousa LB, Oliveira LA. Long-term outcomes with Boston type 1 keratoprosthesis in ocular burns. *Arq Bras Oftalmol.* 2018;81(3):177-82.
2. Lansini T, Kwitko S. Quality of Life in Patients with Dohlman-Doane Type 1 Keratoprosthesis (Boston Kpro). *J Clin Exp Ophthalmol.* 2015;6:4. Doi: 10.4172/2155-9570.1000447.

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# Response: long-term outcomes with Boston type 1 keratoprosthesis in ocular burns

## Resposta: resultados a longo prazo com o implante da ceratoprótese de Boston tipo 1 em queimaduras oculares

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Dear Editor,

We read with interest the comments about our article by Kwitko and associates. We agree with the authors that B-Kpro implantation is a valid option for visual rehabilitation in patients with a severely damaged ocular surface secondary to ocular burns, as is clearly emphasized in the discussion section (first and last paragraphs below).

### Discussion section:

First paragraph: "This study confirmed that B-Kpro implantation is a valid option for visual rehabilitation in patients with a severely damaged ocular surface secondary to ocular burns, and this finding is in agreement with findings of relevant studies."

Last paragraph: "In summary, the anatomical and functional results in this study indicated the capability of B-Kpro for visual rehabilitation in patients with thermal or chemical ocular burns, who have experienced unsuccessful treatment for vision loss."

While we understand the authors' concern of irreversible visual loss in this population, their interpretation must be analyzed with discretion. We concluded that "type I Boston KPro is a continuous threat that may result in irreversible visual loss in this population" as referred in their letter. Our conclusion in the abstract section is: "The anatomical and functional results support the use of B-Kpro for managing bilateral limbal stem cell deficiency secondary to ocular burns. *However, glaucoma should be carefully evaluated, as it is a continuous threat that may result in irreversible visual loss in this population.*" Even though this point was clear in the abstract (conclusion section), we would like to clarify that we had mentioned glaucoma as a continuous threat during follow-up of these patients as already pointed out by other authors<sup>(1)</sup>.

### REFERENCE

1. Cade F, Grosskreutz CL, Tauber A, Dohlman CH. Glaucoma in eyes with severe chemical burn, before and after keratoprosthesis. *Cornea*. 2011;30(12):1322-7.

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