

# Reply to Letter: Outcome of Sclerokeratoplasty in Devastating Sclerocorneal Infections

We acknowledge and appreciate Dr. Arjun Srirampur's interest in our recently published article entitled, "Outcome of sclerokeratoplasty in devastating sclerocorneal infections".<sup>1</sup> Herein, we would like to address the queries and doubts raised by him regarding the same.

The purpose of our study was to assess the achievement of anatomical integrity after tectonic sclerokeratoplasty procedure in devastating corneoscleral infections. Persistent or non-healing epithelial defect associated with reinfection was observed in our study in nine eyes of Group C which were subjected to regrafting or evisceration. We also encountered delayed and prolonged epithelial healing response in few patients of Group C, resulting in epithelial irregularities and haze. However, this was not threatening the globe integrity and was managed with medical treatment obviating the need for additional surgical measures. This low incidence of persistent epithelial defects can be attributed to the following factors. Considering the 75% of eyes implanted with a graft sized more than 11 mm, the scleral involvement was limited to two or three quadrants in more than half of these eyes (55%). The remaining scleral quadrants in these eyes were healthy and uninvolved with preserved limbal stem cells which may have been responsible for the postoperative epithelial healing.

Studies have considered a large diameter sclerokeratoplasty procedure to be a form of stem cell transplantation and have emphasized the role of donor limbal stem cells.<sup>2</sup> Ilari and Daya have also reported the ability of keratolimbal allografts in restoring the phenotypic corneal epithelium.<sup>3</sup> In our study, the healthy limbal stem cells of the large diameter corneoscleral donor tissue replacing the infected limbal tissue of the host may additionally be responsible for epithelial healing. The meticulous dissection and preservative surgical approach might have also contributed to the low incidence of persistent epithelial defect.

The minimum endothelial cell density of the donor grafts used in our study was 1800 cells per square millimeter and the death to surgery time was between 1 and 5 days.

## Conflicts of interest

There are no conflicts of interest.

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**Submitted:** 23-Apr-2020;

**Accepted:** 01-May-2020;

**Published:** 04-Jul-2020

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#### Website:

www.jcurrophthalmol.org

#### DOI:

10.4103/JOCO.JOCO\_160\_20

**How to cite this article:** Thatte S, Dube AB, Dubey T, Krishan M. Reply to letter: Outcome of sclerokeratoplasty in devastating sclerocorneal infections. *J Curr Ophthalmol* 2020;32:306.