

## A response to: "A Second Look at the Impact of Normal Saline on the Incidence of Exposure Keratopathy"

Dear Editor,

Unfortunately, there is no universally accepted protocol for eye care in the intensive care unit (ICU).<sup>[1]</sup> Some authors recommend the use of normal saline,<sup>[2]</sup> but the results of some studies have shown that it should not be used routinely.<sup>[3]</sup> Therefore, our study was designed to evaluate the effect of normal saline on the occurrence of Exposure Keratopathy (EK) in the ICU, considering a group that is only treated with normal saline, and does not receive usual treatments, not approved by the Ethics Committee. In addition, the authors believe that, despite the simultaneous use of conventional treatments and saline, any changes in occurrence of keratopathy are more valuable. The discontinuation of conventional treatments that their preventive role has been identified can be a major contributing factor to the analysis of information when one group receives only normal saline.

The existence of controversy over the use of normal saline shows that the need for a clinical trial study is necessary. The results of studies on the tear evaporation rate, may not be easily extended to occurrence of EK in patients in the ICU. In these studies, which are essentially laboratory, all conditions are under control and normal saline has been used as a placebo.<sup>[4]</sup> Whereas in critically ill patients, the conditions are quite different. These patients usually have severe and acute illnesses, and most often have one or more comorbidities. Critically ill patients often have lagophthalmos, chemosis, immune disorder, and reduced REM that increase the likelihood of keratopathy. Moreover, some medications may interfere with protective mechanisms of the eye.<sup>[3]</sup> Therefore, studying the effect of saline on the occurrence of keratopathy in these patients seems completely necessary.

The occurrence of EK on the 1<sup>st</sup> day in the total population was about 7% and it was increased in two groups, during the study. However, it should be noted that the number and severity of keratopathy in the intervention group were significantly increased. Although at the beginning of the study, the occurrence of keratopathy was similar in the two groups, but it would be better if they did not enter the study.

In this study, we used an artificial tear solution without a preservative, and containing methyl cellulose (0.3%). This solution was routinely used in ICUs.

### Financial support and sponsorship

Nil.

### Conflicts of interest

Nothing to declare.

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#### DOI:

10.4103/ijnmr.IJNMR\_27\_18

**How to cite this article:** Davoodabady Z, Rezaei K. A response to: "A second look at the impact of normal saline on the incidence of exposure keratopathy". *Iranian J Nursing Midwifery Res* 2018;23:492.

**Received:** February, 2018. **Accepted:** May, 2018.

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