




Eye taping and chlorhexidine exposure: caution when interpreting scarce evidence

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To the Editor,

When conducting a review on chlorhexidine exposure and ocular toxicity,^A I came upon the recent letter by Dr. Reimer¹ and wanted to highlight a recent case report and raise a few additional relevant points.

First, it is important not to develop a false sense of security that using occlusive eye taping is always a reliable form of eye protection. A recent report by Bever *et al.*² described two cases of corneal toxicity wherein neurosurgical patients' eyes were protected by transparent breathable membrane tape (Tegaderm; 3M Corporation, Maplewood, MN, USA), as illustrated in Dr. Reimer's figure (panel E). In one case, the patient was prone, and the posterior neck was prepped with chlorhexidine. In the other case, the patient was supine, and the head was prepped. In both cases, the chlorhexidine reached the eyes and permeated the adhesive eye-covering dressing. The corneal toxicity was discovered at the end of the respective seven- and ten-hour operations.

Second, except for the patients described above, a review of the literature did not reveal any other reported cases of ocular toxicity (or ototoxicity) associated with prepping the neck. Most cases occurred because of surgical prepping of the periocular area or with direct instillation into the eyes. There are a few cases, however, of chlorhexidine migrating into the eyes when patients were in a prone, lateral, or lateral decubitus position.^{2,3} Although

preventing complications is important, it may be informative to note that there is little to no evidence to recommend eye taping during routine placement of a central line in a supine patient prepped with chlorhexidine. It is, however, important to be aware of the possibility of liquid antiseptic migration due to gravity and, as stated above, to remember that even occlusive eye tape may offer insufficient protection from chlorhexidine exposure during anesthesia.

Conflicts of interest None declared.

Editorial responsibility This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia*.

References

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This letter is accompanied by a reply. Please see *Can J Anesth* 2018; 65: this issue.

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^A PubMed searched without restriction on language or dates. Search strategy: (chlorhexidine and [(eye or ocular or keratitis or corneal or cornea) or (ear or ototoxicity or canal or deafness or hearing)]) (accessed September 14, 2017).