

Topical analgesic may provide pain-free 'skin glue' repair of cuts in children

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More than 50% of children who were given a topical analgesic had no pain during wound repair with "skin glue," according to the results of a randomized controlled trial reported in *CMAJ (Canadian Medical Association Journal)*.

Tissue adhesive or "skin glue" is regularly used in pediatrics to repair minor cuts but can cause pain or a [burning sensation](#).

Researchers conducted a [randomized controlled trial](#) to determine whether preapplication of lidocaine–epinephrine–tetracaine would decrease pain in children undergoing repair of minor cuts with tissue adhesive. The trial involved 221 children aged 3 months to 17 years who sought care at an academic hospital's [pediatric emergency department](#) in 2011 and 2012.

Children aged 7 or older rated their own pain using the Faces Pain Scale—Revised, a scale that helps children communicate pain using images with [facial expressions](#); parents or guardians rated the perceived pain of younger children. In the treatment group, 51% of children reported no pain compared with 28% in the [placebo group](#).

"Perhaps the most meaningful outcome for parents and children facing acute pain in the emergency department is how likely a procedure is to be completely pain free," writes Dr. Stuart Harman, Division of Emergency Medicine, University of Ottawa and the Ottawa Hospital Research Institute. "More than half of the patients who received

lidocaine–epinephrine–tetracaine in our study (or their parents or guardians) reported no pain during adhesive application, which was nearly double the proportion of pain-free procedures reported in the placebo group."

As well, wound hemostasis was rated complete by physicians in 78% of the treatment group compared with 59% in the placebo group.

The authors suggest early application of the analgesic to all minor cuts regardless of whether they need sutures or tissue adhesives.

"Taken together with our finding that this analgesic reduces pain in tissue repairs using adhesive and improves the likelihood of a painless procedure, early application of lidocaine–epinephrine–tetracaine to all minor lacerations awaiting definitive physician repair could be a practical method of decreasing children's pain during these procedures," write the authors.

More information: www.cmaj.ca/lookup/doi/10.1503/cmaj.130269

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