Non-cocaine, topical anaesthetics can kill pain when repairing skin wounds
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While some pain killers need to be injected into the damaged tissue in order to work, topical anaesthetics only need to be spread on the surface. The earliest examples of “topical” anaesthetics contained cocaine, but now a new systematic review has shown that newer agents that don't contain cocaine can effectively treat pain caused by torn skin. This makes these pain killers an attractive choice for doctors who need to sew-up a patient's skin wound.

This finding was reached after a team of Cochrane researchers analysed data from 32 randomised control trials that together involved 3128 patients.

Wiping or placing an anaesthetic cream, gel or patch onto damage skin can be easier to perform and less painful to the patient than injecting a pain killer through a needle. The first versions of this form of pain killer used cocaine. That, however, makes the pain killer difficult to use in practice, because there are concerns over possible harms and in many countries cocaine use is tightly controlled. Consequently the pharmaceutical industry has produced a range of non-cocaine topical anaesthetics.

"The research clearly showed that cocaine-free topical anaesthetics can substantially reduce pain without triggering serious side effects," says the study's lead researcher Anthony Eidelman, who works at the Olathe Medical Centre in Kansas, USA. He adds that because the trials varied widely in the ways that they were performed and the ways that pain was measured, his team was unable to draw any more detailed conclusions.

"We need to encourage people to do more research using non-cocaine topical anaesthetics, but this time perform the research in ways that are sufficiently rigorous. These agents look promising at the moment, but it would be great to confirm their value with high-quality research," says Eidelman.


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