**Enzymatic debridement with collagenase in wounds and ulcers: a systematic review and meta-analysis**

Summary

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Enzymatic debridement with collagenase is a technique that is commonly used in clinical practice, as a process to remove necrotic, infected tissue or fibrin, debris or any foreign substance from a wound. It is assumed that debridement exerts a positive action on the wound bed, by enhancing healing of the tissue. Alternative debridement techniques can be used including: autolytic, biological, enzymatic, mechanical, sharp and surgical debridement. The main factors influence which mode of debridement to select depends on, the patients' preferences, wounds etiologies (causes), characteristics of wound, and lastly cost. Enzymatic debridement with collagenase is a commonly used technique of debridement in clinical practice. Studies suggest that enzymatic debridement with collagenase is both a safe and operative technique for burns, pressure ulcers and venous ulcers. Studies also reported outcomes with the use of collagenase either for wound healing or wound debridement. The results from the experiment support the procedure of using collagenase for enzymatic debridement in pressure ulcers, diabetic foot ulcers and in conjunction with topical antibiotics for burns. Altogether, the data supports the use of topical collagenase ointment as an enzymatic debriding agent for pressure ulcers, diabetic foot ulcers and burns when compared to alternative techniques of healing and debridement. On the other hand, compared to the alternative treatment, the use of collagenase as a debriding agent is associated with an increased risk of related adverse events within the patient. These adverse events are often associated with pain. When treating burns and compared to silver sulfadiazine, the use of collagenase with topical antibiotics as a debriding agent is also associated with an increases the probability of related adverse events.