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What is the effect of larval therapy on the debridement of venous leg ulcers? A systematic review

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Aim: To determine the impact of larval therapy on the debridement of venous leg ulcers, in comparison to other debridement methods or no debridement.

Method: Using systematic review methodology, published quantitative studies focusing on the effect of larval therapy on the debridement of venous leg ulcers were included. The search was conducted in January 2020 and updated in May 2021 using CINAHL, PubMed, Embase, and the Cochrane library, and returned 357 records, of which six studies met the inclusion criteria. Data were extracted using a predesigned extraction tool and all studies were quality appraised using the RevMan risk of bias assessment tool.

Results: Larval therapy was found to debride at a faster rate than hydrogel ($p = 0.011$, $p < 0.001$, $p = 0.0039$), have a similar effect to sharp debridement ($p=0.12$, $p=0.62$), and was a resource-effective method of debridement ($p<0.05$, $p<0.001$, $p<0.001$). When larval therapy in combination with compression therapy was compared to compression alone, larvae had a greater effect on debridement ($p < 0.05$), however, it did not improve overall wound healing rates ($p=0.54$, $p=0.664$, $p=0.02$). Pain levels increased during larval therapy and reduced after treatment.

Conclusion: Larval therapy promotes rapid debridement of venous leg ulcers. However, further high quality randomised controlled trials, comparing larval therapy to other debridement methods for venous leg ulcers, incorporating the use of compression is required to determine the long term effects of larval therapy.

Recent publications

1. Greene E, Avsar P, Moore Z, Nugent L, O'Connor T, Patton D. What is the effect of larval therapy on the debridement of venous leg ulcers? A systematic review. J Tissue Viability. (2021). Aug;30(3):301-309.

2. Fan W, Yang B, Hu X, et al. Safety and efficacy of larval therapy on treating leg ulcers: a protocol for systematic review and meta-analysis. BMJ Open 2020;10:e039898.

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