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Abstract: In the majority of cases of onychocryptosis, the best outcome will be achieved by nail avulsion with phenol matrixectomy. Although phenol matrixectomy has a success rate in the region of 95%, wound healing is necessarily delayed due to the resultant chemical burn. Delayed wound healing is associated with an increased risk of post-operative infection. Manuka honey is a New Zealand honey originating from the *Leptospermum scoparium*, which has been shown to positively influence wound healing and to have antibacterial activity. The maintenance of a moist environment has long been established as providing optimal conditions for wound healing and Manuka honey used in combination with a suitable wound dressing, promotes such an environment. Method -Study participants were recruited from a group of patients presenting for nail avulsion surgery. Participants were randomly allocated to one of two study groups and received either i) the standard post-operative dressing protocol, or ii) the standard post-operative dressing protocol with the addition of Manuka honey to the primary wound dressing. Data collection comprised the quantitative assessment of wound healing variables, with additional qualitative input from the study participants. Results- Preliminary data analysis indicates little effect of Manuka honey on wound healing variables such as granulation or epithelialisation, but does suggest a positive impact on the patients perception of post-operative pain and the process of wound healing per se. No post-operative wound infections were observed in either of the study groups. Discussion- A number of trials have shown honey to be successful in the treatment of burns and wounds. This study investigated the use of Manuka honey on postoperative nail surgery wounds, where phenol matrixectomy creates a localised chemical burn. Manuka honey appears to positively influence the patients perceptions of post-operative pain and wound healing following nail surgery.

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The effect of Manuka honey on post surgical nail avulsion wound healing.

Manuka honey, a New Zealand honey, has been found to exhibit high levels of anti-biotic components that can be used effectively in the treatment of wounds (Molan, 2001). In addition to the anti-microbial components, this honey aids wound healing through allowing for moist wound healing to occur and also aids autolytic debridement of wounds, neutralising odour and stimulation tissue regeneration. There has been a renaissance in the use of honey in wound healing due to the increasing resistance of bacteria to antibiotics (Bilal & Gedebo, 2000)

Onychocryptosis is a common disorder that often requires surgical removal of the pathological nail. Nail avulsion with phenol ablation of the nail matrix is the most commonly used surgical method to treat onychocryptosis due to the minimal regrowth rates, and simplicity of the procedure. Concern lies with the extended healing time associated with the use of phenol acid due to the creation of a chemical burn (White, 2005).

The purpose of this study was to investigate the effect of Manuka honey on the wound healing time in nail avulsion wounds, with phenol ablation of the matrix. This research was conducted at the Charles Sturt University Allied Health Centre, and involves the use of thirteen subjects. Subjects were randomly assigned to a Manuka honey dressing group, or a plain gauze dressing group and were required to return for weekly re-dressing appointments until such time as the wound had healed.

Results showed no statistically significant difference between the two groups, $p > 0.05$ for all variables tested. However, the descriptive statistics indicate a clinically significant difference between the two groups. This is most likely due to the small sample size used in the study.