The Cochrane review on honey-based products: A considered view from Medline.

A recent article issued by The Cochrane Collaboration reviewed studies on honey-based treatments for wounds. For the reasons discussed below, Medline does not believe that this review provides a complete, accurate, or fair assessment of the role of honey-based products in wound management.

Debridement is generally understood to play an important role in wound management. Honey-based wound care products are intended to provide a moist wound environment that promotes autolytic debridement. Laboratory testing, however, has demonstrated that not all honey products are the same; for example, each may have different osmotic potential and thus promote autolytic debridement to a different degree. Notwithstanding such differences, the recent Cochrane Collaboration meta-analysis reached general conclusions about all honey products based on 14 different types of honey. Such mixing or grouping of dissimilar products is a recognized limitation of meta-analyses. This is particularly relevant for honey, which is a natural product with varying ingredients and quality. Furthermore, of the 25 studies included for review in the Cochrane meta-analysis, only four studies evaluated Manuka honey, and only one study investigated an FDA-cleared Manuka honey product.

The Cochrane Collaboration reviewers did not discuss honey’s clinical efficacy promoting autolytic debridement. Instead, they reviewed the wound healing property of honey. Medical honey is regulated by the FDA as a device for wound management. Using the rigorous standards that are typically applied by the Cochrane Collaboration, the reviewers concluded that the evidence on honey’s efficacy in wound healing is inconclusive and that healthcare providers should take this inconclusiveness into account when considering use of honey-based products for wound treatment. This position taken by the Cochrane reviewers is not unusual in the field of wound therapies, whether they be drugs or devices.

For example, it is interesting and illuminating to note what the Cochrane Collaboration has stated on the topic of debridement via other methods, including a drug. Collagenase is the only FDA-approved drug for active debridement of wounds. Two reviews on debridement performed by Cochrane reviewers in recent years, however, also show inconclusiveness on the use of enzymatic drugs, as well as other products, for debridement. Specifically, the reviewers evaluated different methods of debridement on the rate of debridement and healing of surgical wounds in a 2011 review article. The Cochrane review concluded that there is “insufficient valid research evidence to recommend any one particular method.” Thus, insufficient research evidence was found to exist in this review on the use of enzymatic agents, including collagenase. Indeed, it appears that no collagenase

4 Id. at 2.
5 The Cochrane review on debridement for surgical wounds states that “[d]espite the availability of a range of debridement methods, . . . only five poor quality RCTs [randomized clinical trials], all conducted prior to 1990
clinical trial met the Cochrane reviewers’ inclusion criteria for consideration in their review of debridement products.

Another Cochrane review on debridement of diabetic foot ulcers, published in 2010, found evidence suggesting that the rate of healing increased when a hydrogel dressing was used in comparison to a gauze dressing.⁵ This review stated that evidence for other debriding methods, including enzymatic methods, for diabetic foot ulcers is unclear.

Other articles also have reached the similar conclusion that there is a lack of large scale clinical trials on the various methods of wound debridement. The author of a peer-reviewed journal article on the role of debridement in wound bed preparation states that “[e]nzymatic debriding agents contained in commercially available products for the treatment of wounds include collagenase, fibrinolysin-DNase, papain-urea, streptokinase-streptodornase, and trypsin. Not all are available in the United States. . . . Studies of the clinical efficacy of these agents have been variable in their results. In general, large-scale trials are lacking, and some have questioned whether these agents truly provide an additional benefit over more standard therapies.”⁶

Thus, while there is a consensus that there is a huge variation in wound etiologies and patient conditions, there is no consensus regarding the best way to evaluate the effectiveness of various wound management products. The Europe-based Cochrane Wound Group’s views have only added to the confusion by the insistence on using meta-analytical methods, causing the highly respected European Wound Management Association (“EWMA”) to comment on the methodologies suggested by the Cochrane Wound Group.⁸ In a 2010 publication, EWMA criticized the Cochrane Wound Group’s position that evidence-based medicine in the wound care sector be restricted to randomized controlled trials and meta-analyses, noting that “there is fundamental confusion over the best way to evaluate the effectiveness of interventions in this complex patient population.”⁹ EWMA further observed that “[t]his situation is confounded by differences in the advice given by regulatory and reimbursement bodies in various countries regarding both study design and the ways in which results are interpreted.”¹⁰ It is hardly surprising, therefore, that the conclusive evidence by the Cochrane standards is difficult to find for most wound care products.

In conclusion, it is clear that, although there are many smaller studies that provide useful data on wound management products, there is a consensus among experts in the wound care field that there is a lack of large scale clinical trial data on the various methods of wound debridement. It is hoped that rigorous clinical trials will emerge on all wound debriding products, whether they are of active, autolytic or other type, and that the Cochrane Collaboration and other reviewers will keep updating the clinical community with their findings.

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⁸ Id., at 239.
⁹ Id.
¹⁰ Id.