THE USE AND BENEFITS OF ACTIVE *LEPTOSPERMUM* HONEY PRODUCTS ON NIPPLE WOUNDS IN BREASTFEEDING MOTHERS

Heidi Croal RN, Midwife, IBCLC, Lactation Consultant
Peterborough Regional Health Centre, Peterborough, ON

PURPOSE

To increase the promotion and rate of healing, reduce pain and infection with the use of Active *Leptospermum* Honey* (ALH) products on partial and deep thickness wounds of the nipple; therefore, increasing the continuation of breastfeeding for its health benefits.

To determine which Active *Leptospermum* Honey (ALH) products are the most convenient and efficient to use, on nipple wounds, while continuing to breastfeed.

PROBLEM

Due to the lack of research, limited experience, limited products for healing partial and deep thickness wounds of the nipples, Lactation Consultants and Health Care Providers have been left with limited resources to help clients; causing more tissue damage and the discontinuation of breastfeeding and its benefits.

METHODS

Active *Leptospermum* Honey (ALH) products: Gel Sheets (GS), Wound Gel (WG), Hydrogel Colloidal Sheets (HCS) and Barrier Cream (BC) were trialed on a variety of nipple wounds in lactating mothers; to assess healing benefits and ease of application.

CONCLUSION

ALH products increase speed of healing from previous limited methods from 2 months and longer to 2-6 weeks. ALH products trialed; were all easy to apply, non-disruptive to breastfeeding and the infant did not appear to mind the smell and taste of residual ALH on the breast. A burning and stinging sensation sometimes experienced with the use of ALH and also indicative of symptoms of 'ductal yeast' was reduced with the use of slow release GS. HCS and WG were found to be the most comfortable and easiest to use. However, over saturation of the HCS occurred from milk with clients that produced a lot of milk. BC is easy to use and provides adequate fast healing to 'superficial wounds' but may not be as useful for 'deep thickness wounds', where other ALH products would prove better.

References: "A next generation honey dressing: Medihoney HCS. London: Wounds UK, 2013 9(4)." Biglari B, Moghaddam A, Santos K et al (2013). Multicentre prospective observational study on professional wound care using honey (Medihoney). Int Wound J 10(3): 252–9. Seckam A, Cooper R (2013) Understanding how honey impacts on wounds: an update on recent research findings. Wounds International 4(1): 20–24.

*MEDIHONEY® Active *Leptospermum* Honey Dressings, Derma Sciences Inc., Princeton, NJ

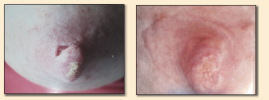
Derma Sciences provided an educational grant to support this research. The information may include a use that has not been approved or cleared by the Food and Drug Administration. This information is not being presented on behalf of Derma Sciences.

CASE 1 - DEEP THICKNESS WOUND

Client 2 was first seen at the Breastfeeding Clinic four weeks post-partum with bilateral deep thickness wounds of the nipple. Small blisters and cracks initially occurred on day two. She was being treated for Ductal Candida with Gentian Violet, Grapefruit Seed Extract and APNO . She was also taking oral Cloxacillin.

TX: Client discontinued the above treatment but completed her course of oral antibiotics. ALH HCS was applied and left on after breastfeeding. Client was to wash nipples with soap and water one to two times per day with regular bathing.

Two weeks following: Client expressed less pain and increased healing for the first time. However, she continued to experience a 'burning pain' possibly associated with ongoing Ductal Candida. We changed to GS because of the 'burning sensation' and clients expressed less pain.



Before TX After TX

CASE 2 - DEEP THICKNESS WOUND

Client 3 was first seen at the Breastfeeding Clinic at four weeks post-partum. She was complaining of a sore cracked left nipple that had occurred on day 2 and got progressively worse. She had stopped breastfeeding and was pumping only to lessen the pain. Client had been using APNO and a sponge dressing.

TX: ALH HCS dressing was applied and left on between breastfeeding and or pumping. Client was to wash nipples with soap and water one to two times per day with regular bathing.

Two weeks following: Client expressed less pain and the nipple wound started to close and heal. Client had continued to pump left breast every 3 hours. ALH WG was started in place of HCS for ease of application and because of milk saturation of dressing.

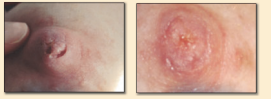
Before TX After TX

CASE 3 - DEEP THICKNESS WOUND

Client 4 was first seen at the Breastfeeding Clinic 2 weeks post-partum with a deep thickness wound of the left nipple that had started as a small crack on day 3. She was using APNO. She had stopped nursing from the left side and was pumping every 3-5 hours to lessen the pain and maintain her supply. She experienced no pain with pumping and infant was gaining well from nursing only on the right side.

TX: ALH WG was to be applied after pumping or nursing every 3-4 hours. Client was to wash nipples with soap and water one to two times per day with regular bathing.

Two weeks following: Left nipple was healing well but client complained of a "stinging" sensation. Therefore, we changed to ALH GS which resulted in a reduction of the "stinging".



Before TX After TX

CASE 4 - SUPERFICIAL WOUND

Client 5 was first seen on day 5 post-partum complaining of bilateral sore nipples. She had minor compression cracks across the center of her left and right nipple.

TX: ALH WG was applied for ease of application after nursing every 2-3 hours. Client was to wash nipples with soap and water one to two times per day with regular bathing.

Two weeks following: Nipples were completely healed. No stinging sensation noted with use.

Before TX After TX

CASE 5 - PARTIAL THICKNESS WOUND

Client 6 was first seen on day 5 post-partum with one small open crack on each nipple. Client complained of mod-sever pain and was using APNO.

TX: ALH BC was applied and left on after breastfeeding. Client was to wash her breast with soap and water one to two times per day with regular bathing.

Two weeks following: Client was still experiencing some' burning' pain and was informed that she also had ductal candida. ALH BC was replaced with GS dressing to be applied after breastfeeding and left on. Four weeks following: Nipple cracks had almost healed over and pain improved except with initial 'latching' on. GS changed to WG for ease of application. Six weeks following: Nipples had completely healed. Pain associated with latching and ductal yeast was also gone.

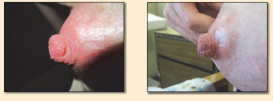
Before TX After TX

CASE 6 - PARTIAL THICKNESS WOUND

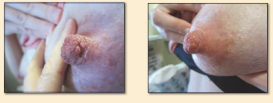
Client 7 was first seen at the Breastfeeding Clinic at 3 weeks post-partum complaining of sore bilateral cracked nipples since day 2 with ongoing and increasing pain. Both nipples had small partial thickness wounds with the right nipple being more extensive. The Client had been using APNO and hydrogel dressings with no change.

TX: ALH WG was applied every 3 hours immediately after nursing and HCS was applied at night. Client was to wash nipples with soap and water one to two times per day with normal bathing. Client also expressed that she would also like to pump her milk rather than breastfeed until healing started.

One week following: Client expressed a significant decrease in the pain and increase in healing for the first time. She had also started to breastfeed again and was only pumping 1-2 times per day. Client expressed that the HCS were very comfortable but became over-saturated with milk at night and used just the WG. No stinging sensation was noted with use of ALH. Two weeks following: Client expressed feeling no pain and no stinging or burning sensation with the use of ALH WG. She also expressed being pain free when breastfeeding her son exclusively now. Both nipples were healing well with continued tissue growth and significant wound closure.



Left Nipple - Before TX Left Nipple - After TX



Right Nipple - Before TX Right Nipple - After TX