Disclaimer

• The content of this presentation reflects the choice of Algivon Alginate with Activon Manuka Honey as the method of wound healing. This was requested by the patient given the outcome from a previous injury.
• A surgical option was offered to Mr M but declined.
• Treatment began with all three parties involved agreeing on a care plan. (GP, Nurse, Patient)
• My affiliation with Advancis & W M Bamford is a purely professional choice of products.
• The information given in this presentation is on evidence based practice.
• Case study of 54 year old male
• Mr M
• Self-employed Contractor
• Injury: traumatic amputation to right ring finger distal to DIP joint caused by a pulley at work
• Accident happened at 8am on 24/01/2013. Dressed by mates on site.
• Seen at Kenepuru Hospital at 5pm.
• Finger stump not bleeding, almost straight (horizontal) amputation distal to DIP joint, tiny half moon of nail remains.
• Able to flex PIP and DIP joints independently.
• Bone is visible.
Anatomy of Hand & Finger

- Distal phalanx
- Middle phalanx
- Proximal phalanx
- Metacarpals
- CMC carpals
- Radius
- Ulna

DIP joint

PIP joint

Distal phalanx

Middle phalanx

Proximal phalanx
• Kenepuru Hospital recommended that the patient be referred to Hutt Plastics Department for a surgical amputation of finger tip at PIP joint
• Doctor at KPH recommended operation, as conservative treatment would mean longer healing time and a higher risk of infection
• Patient declined surgical option and wished to visit own GP for treatment
• Patient came to GP surgery the following day
• Right ring finger was a very meaty wound with blood clot sitting in its centre
• Surgery option discussed again in depth. Mr M declined as he wished to continue with conservative treatment consisting of Algivon Alginate Honey Dressings.
• Patient reviewed for traumatic amputation of right ring finger tip, occurring 4 days ago
• Wound bed healthy and clean with no visible signs of infection
• Patient consented to photographs being taken to be used for educational purposes.
• Treatment plan agreed to between Mr M, his GP and wound nurse.

Use of daily Algivon Alginate dressings
Dressing Regime

• Daily dressings initially then 3/7.
• Normal saline to clean the wound
• Algivon Alginate for the primary dressing
• Interpose lite as secondary dressing
• Gauze padding
• Tubifast to secure dressings
30 January 2013 review and continuation of dressing regime
31 January 2013 review and continuation of dressing regime
4 February 2013 review and necrotic tissue debrided. More granulating tissue and epithelisation occurring.
7 February 2013 review and continuation of dressing regime
11 February 2013 review
15 February 2013 review
18 February 2013 review
22 February 2013 review
25 February 2013 review
8 March 2013
22 March 2013 final review with finger tip healed and nail growing
22 March 2013 final review
Summary of Treatment

• 8 weeks to heal with conservative treatment.
• No further antibiotics required after initial course prescribed by KPH.
• Mr M could continue to work with no loss of income.
• Wound was pain free most days.
• Treatment met Mr M’s expectations
• Mr M has sensation and full movement in his finger and was very happy with the final result.
Left middle finger 2011
This is the result from a previous injury
Medical Grade Honey dressings

• The use of honey is well established in modern wound care and provides antimicrobial and anti-inflammatory properties through autolytic debridement and maintenance of a moist wound bed. Honey inhibits bacterial growth, stimulating wound healing and deodorising the wound.

• Honey is bactericidal and antifungal. Effective against approx. 70 bacterial strains both gram-positive, gram-negative, those patients susceptible to MRSA and other antibiotic-resistant bacteria, and some yeasts
Actions of Honey

• Antimicrobial action is both mechanical and enzymatic

• Like sugar pastes, honey can inhibit bacterial growth through its osmolality, where the high concentration of sugars causes water to be drawn from the local wound environment. This also maintains a moist wound environment by stimulating fluid transfer from surrounding tissue.
Manuka Flowers
(Leptospermum Scoparium)
Manuka Honey

• Manuka Honey is produced from the manuka bush indigenous to New Zealand and Australia.
• Unique Manuka Factor UMF = the phytochemical-derived property from the nectar of the flower. Accordingly the UMF is batch tested from low 0 to high 20 with the higher number indicating a higher antibacterial potency
• Honey is applied topically to a wide range of wounds including ulcers, burns, infected wounds
• Honey can be an ointment, or impregnated within hydrogel or alginate dressings.
How does Honey Treat Infections?

• **Feature 1** High osmosis

• **Antimicrobial action.** Honey is a saturated or supersaturated solution of sugars that has a strong interaction with water molecules. The lack of ‘free’ water inhibits the growth of microorganisms.
• **Feature 2** Hydrogen Peroxide

• **Antimicrobial action.** When honey is diluted by wound exudate, hydrogen peroxide is produced via a glucose oxidase enzyme reaction. This is released slowly to provide antibacterial activity but does not damage tissue.
• **Feature 3** Antibacterial phytochemicals

• **Antimicrobial action.** Some honeys still have antimicrobial activity even when hydrogen peroxide activity has been removed. The honey from Manuka trees (*leptospernum scoparium*) has been found to have high levels of this antibacterial phytochemical.

• In addition to its antimicrobial properties, honey also appears to stimulate lymphocytic and phagocytic activity. These are the key body immune responses in the battle against infection.
Algivon Alginate Dressing

• Algivon Alginate dressing is impregnated with Activon Honey
• Unique manuka factor (UMF) 12
• Benefits include, anti-inflammatory, promotes healing, deodorises the wound, broad spectrum antibacterial, supports moist wound healing, effectively de-sloughs and debrides and may reduce the need for antibiotics
• Can be left in situ for up to seven days, but for maximum effectiveness should be changed when the dressing changes colour
Contraindications of use

• A known allergy to honey or bee venom.
• Algivon Alginate contains glucose, however it is considered safe for use by diabetics although it is advisable to closely monitor blood sugar levels during use. A few patients experience increased sensation when this dressing is applied, due to the acidification of the honey. Algivon Alginate with Activon Honey is sterile and latex free
Thank you for your attendance

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References

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