Flaminal® in the management of scar-line wounds sustained during a fish pedicure

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Summary
Fish pedicures are gaining in popularity in the UK, although the Health Protection Agency (HPA) have recently voiced concern regarding the potential for the transmission of infections. This case study discusses the management of two infected, chronic wounds sustained during a fish pedicure. After 4 months of various dressings and a course of antibiotics, Flaminal® Forte was applied to wound and covered with Mepore. Complete healing was achieved within 2 months of commencing this new treatment regime.

Patient history
John is a fit and healthy 42 year-old male with a history of childhood surgery for right sided congenital talipes equinovarus (clubfoot) coupled with surgery following a road traffic accident which included muscular flaps and grafts leading to extensive scarring of his right foot and shin. Clubfoot, which is twice as common in boys as in girls, affects one baby in every 1,000 born in the UK and is one of the most common congenital abnormalities; even after surgery the corrected clubfoot is usually 1-1.5 sizes smaller and less mobile than a normal foot.

In December 2011 John went for a fish pedicure where he sustained two small wounds over the scar tissue in the medial malleolus area of his right foot. The wounds became infected and enlarged. Fish pedicures, a long established treatment in Turkey, India and the Far East for psoriasis are gaining in popularity in the UK, whilst being banned in parts of the USA and Canada due to increasing public health concerns relating to the potential for the transmission of infections. The pedicure involves one or more individuals immersing their feet in a tank containing live Garra rufa fish, colloquially referred to as nibble fish.

The immediate treatment aims were to debride the slough, reduce John’s pain and manage the exudate levels. There were concerns that John was manifesting some of the cardinal signs of infection, namely pain, increased exudate and oedema although he was not complaining of feeling unwell. A wound swab was taken for culture and sensitivity, which was positive for Citrobacter koseri, possibly linked to the fish pedicure although this has not been proven. A topical antimicrobial enzyme alginogel, Flaminal® Forte was selected to debride and decontaminate the wound and manage exudate levels, this was covered with Mepore, a self-adhesive absorbent dressing.

John was shown how to change the dressings himself on alternate days thus allowing him to continue working and retain his independence. He was reviewed in the clinic on a fortnightly basis only.

Clinical outcome with Flaminal® Forte
The wounds reduced in size to 0.6cm and 1cm respectively within 5 weeks, bacterial load decreased and the wound bed improved. Importantly for John, the pain settled and the exudate levels reduced within the first week of treatment, there was no discomfort during dressing change, which he found easy to manage. He had confidence in the treatment plan, as wound healing was clearly evident. Complete wound healing was achieved within two months.

Figures 1a, b, c. 2 weeks treatment with Flaminal®: complete wound healing achieved

Discussion
The HPA have voiced concern regarding the increasing number of areas offering fish pedicure as there is the potential for the transmission of infection. Fish tank water has been shown to contain a variety of bacterial species. Spa tank water is heated to maintain a temperature of 25-30°C (suitable for fish health), however this will encourage bacterial growth and increase skin porosity on prolonged immersion. They have advised patients who are immunocompromised, diabetic, recent surgery on the lower limbs to think of avoiding fish pedicures. It may well be advisable for people with scar tissue like John to also avoid any potential risk.

Flaminal® Forte (Crawford Healthcare, UK) is an antimicrobial enzyme alginogel that combines the benefits of hydrogels and alginates with an antimicrobial to help reduce bacterial load and debride necrotic and sloughy tissue, it is also capable of controlling exudate levels preventing further complications and discomfort. In patients who are self-managing the tubes are simple to utilise permitting ease of application of the recommended amount of the product.

Conclusion
The treatment plan selected by the plastics team, particularly the use of Flaminal® Forte helped to control the wound bioburden and facilitate debridement, controlling exudate and enabling healing. Importantly for John the dressing selection meant that it was easy for him to manage himself negating the necessity for him to take protracted periods of time off from work and allowing him to retain his independence.

Clinical benefits of Flaminal® Forte
• Pain reduction
• Slough reduction
• Maintenance of optimum wound healing environment
• Non-adherent dressing
• Ease of self-application

References
1. NHS. Club foot. 23-6-2011
2. HPA. Guidance on the management of the public health risks from fish pedicures. 31-8-2011