



Fast Healing plaster: Study on healing properties



Study title and source:

Using a Novel Wound Model to Investigate the Healing Properties of Products for Superficial Wounds Journal of Wound Care 2009 Vol. 18 (3):123-131.

Authors:

Wigger-Alberti W.¹, Kuhlmann M.², Ekanayake S.¹, Wilhelm D.¹, Buettner H.², Callaghan T.¹, Wilhelm K.P.¹ ¹ proDERM Institute for Applied Dermatological Research, Schenefeld-Hamburg, Germany, ² Beiersdorf AG, Hamburg, Germany

Study objective:

To establish a new wound model to induce uniform abrasions and its suitability to assess healing properties of different types of wound dressings

Test dressing/sheet:

Three dressings intended for moist wound healing based on polyurethane (Hansaplast Fast Healing), hydrocolloid (Hansaplast Blister Plaster), hydrogel and two standard first aid dressings

Study design:

Open-label, randomised, intra-individual comparison, pilot study

Participants:

10 healthy volunteers

Treatment/application:

Five standardised, superficial wounds were induced on the forearms and treatments randomly allocated to test areas

Elastoplast

Results:

Uniform and identical standardised wounds created by the abrasive wound model can be used to reliably detect differences in the performance of plasters intended for superficial wounds.

Evaluation of wound healing at study days 2, 5, 8 and 14 ± 1 performed by investigator showed best results for wound healing for the polyurethane product and the hydrocolloid product dressing. Also cosmetic outcome assessed by investigator and panellists was evaluated best for the polyurethane and hydrocolloid product.



Figure 3: Video microscope images of wound on day 14: polyurethane dressing (a); hydrocolloid dressing (b); hydrogel dressing (c); waterproof plaster (d); standard air and water permeable plaster (e)

Conclusion:

In general, products intended for moist wound healing showed better results compared to dry wound healing with an earlier onset and a better outcome of healing. Superficial cutaneous wounds treated with a polyurethane or a hydrocolloid product demonstrated superior rates of reepithelialisation and overall cosmetic outcome.

