Use of an Absorbent Clear Acrylic Dressing on Stage II and III Pressure Ulcers

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Introduction

Since their introduction in the early 1980s, hydrocolloid dressings have become a common dressing of choice for use on Stage II and III, minimally to moderately draining pressure ulcers. While most hydrocolloids have greatly improved in design and function since their initial introduction, they still have limitations. The most notable of these limitations are:

- Inability to visualize the wound and peri-wound skin through the dressing
- High edge profile of the non-bordered versions can catch on clothing/linen
- Limited conformability, especially after absorption
- Formation of a liquefied gel with unpleasant odor can leave residue in the wound and on the peri-wound skin

Discussion

Case Study 1

A 40-year-old male presented with a one-month history of a Stage II pressure ulcer located on his heel. Other significant medical problems included paraplegia, non-insulin dependent diabetes mellitus, hypertension, neuropathy and anemia. The patient was incontinent of urine and stool and had a Braden pressure ulcer risk assessment score of 19.† Wound closure occurred by the Week 4 visit. There were no reports of adverse events, residue, or of the dressing adhering to the wound bed during the study period. Dressing performance evaluations of absorbency, ease of application, ease of removal, conformability, ability to assess wound through the dressing, patient comfort and overall satisfaction were rated "very good" at all dressing changes. The study investigators rated the value of transparency as "very high" at all dressing changes. Average wear time was 3.1 days.

Case Study 2

A 75-year-old male presented with a three-month history of a Stage III pressure ulcer located on the right lateral malleolus. Other significant medical problems included CVA, dysphagia, hypothyroidism, rheumatoid arthritis, and dementia. The patient was incontinent of urine and stool and had a Braden pressure ulcer risk assessment score of 12.† Wound closure occurred by the Week 8 visit. There were no reports of adverse events, residue, or of the dressing adhering to the wound bed during the study period. Dressing performance evaluations for ease of application, ease of removal, conformability, patient comfort and overall satisfaction were rated "acceptable" to "very good" at all dressing changes. The investigators rated the ability to assess the wound through the dressing as "very good" and rated the value of transparency as "moderate" to "very high" at all dressing changes. Average wear time was 6.3 days.

3M™ Tegaderm™ Absorbent Clear Acrylic Dressing

Tegaderm Absorbent Clear Acrylic Dressing (TAAD) is a new dressing designed to address the shortcomings of hydrocolloid dressings. The product consists of a clear, absorbent, acrylic polymer pad sandwiched between two layers of transparent polyurethane film. The polyurethane film extends approximately one inch beyond the absorbent pad, forming a transparent adhesive border. The film is semi-permeable to moisture vapor, yet fully impermeable to water and bacteria, thus providing an excellent moist and protective healing environment for the wound. Because the dressing remains transparent upon absorption of wound fluid, observation and monitoring of the wound is possible without removal of the dressing. The dressing has three main features that distinguish it from hydrocolloid dressings.

Transparency

- Allows for wound observations without removing the dressing

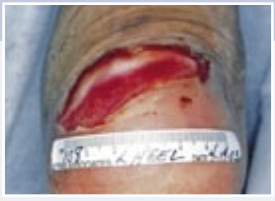
Unique absorbent acrylic polymer

- Manages up to moderate amounts of drainage
- Will not melt down or leave residue in the wound or on the peri-wound skin
- Eliminates odor derived from dressing decomposition

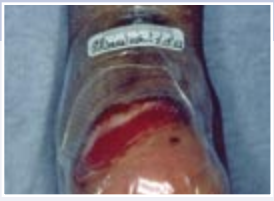
Conformability

- Molds to difficult body contours and remains conformable after absorbing wound drainage

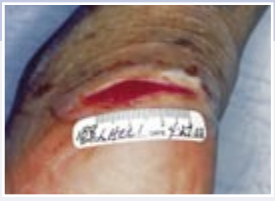
(The TAAD dressing was evaluated in a randomized, controlled clinical trial. Two cases from that trial are presented in this paper.)



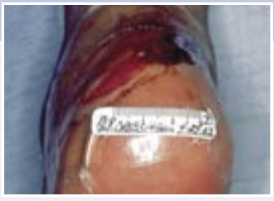
Initial Wound 8.08 cm



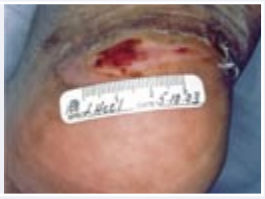
Initial dressing application



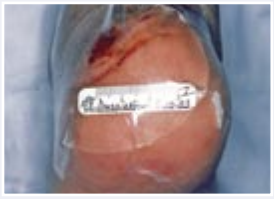
Week 1 Wound 1.38 cm²



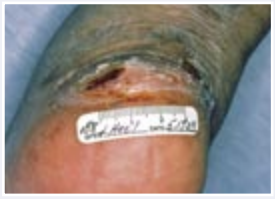
Week 1 dressing applied 1 day before photo



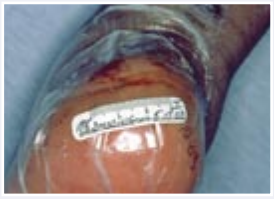
Week 3 Wound 0.19 cm²



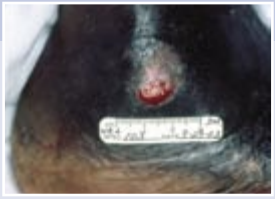
Week 3 dressing applied 1 day before photo



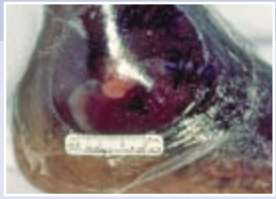
Week 4 Wound closure



Week 4 dressing applied 5 days before photo

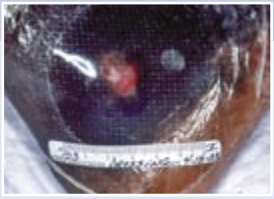


Week 2* Wound 0.60 cm²



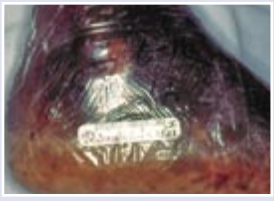
Week 2 dressing applied 10 days before photo

Week 5 Wound 0.28 cm²

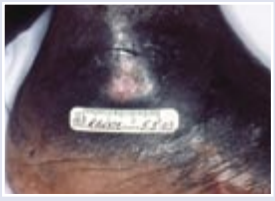


Week 5 dressing applied 7 days before photo

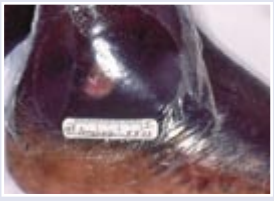
Week 7 Wound 0.05 cm²



Week 7 dressing applied 8 days before photo



Week 8 Wound closure



Week 8 dressing applied 4 days before photo

**Photos from Initial, Week 1 and Week 2 visits missing*

Conclusions

- For both patients, the absorbent acrylic dressing provided a moist and protective healing environment for the wound
- Ability to visualize the wound and peri-wound skin may help prevent unnecessary dressing changes
- Ability to reduce dressing changes may result in less wound disruption, improved patient comfort and reduced treatment cost
- Tegaderm Absorbent Clear Acrylic Dressing retains all the positive features of hydrocolloid dressings while improving upon inherent limitations, namely lack of transparency, wear time and dressing melt-down and odor.

† Braden Scale for Predicting Pressure Sore Risk, © Braden and Bergstron, 1998. Source: WOCN Guideline for Prevention and Management of Pressure Ulcers (2003)

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70-2009-7156-5