

THE USE OF HYDROCONDUCTIVE DRESSINGS TO PREVENT AND TREAT SKIN EXCORIATION IN YOUNG CHILDREN

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Introduction: Enteric and urinary effluent onto infant skin can cause skin irritation ranging from peristomal dermatitis, to maceration, to skin loss. The chemical dermatitis is due to irritants in the effluent such as pH, unbalanced electrolytes, and increased enzyme content. The exact content varies depending on whether the internal source is from the proximal or distal portion of the organ. Powders, skin barrier creams, and pouching can often manage the output and prevent skin excoriation and breakdown.

Problem: In infants and young children, standard techniques of skin protection and treatment are not always sufficient. Also, the adhesives on pouches can often add to the problem. We decided to try a hydroconductive dressing* known to draw off excessive exudate, bacteria, and harmful chemicals as a means to protect and treat the problems accompanying urinary and enteric fistulas in young children.

Methods: Eight cases of either enteric or urinary drainage onto skin were treated with hydroconductive dressings after standard treatments were unsuccessful. The hydroconductive dressings were used in various ways such as single layer, stacking, or wicking as necessary to control the fistulous effluent. The hydroconductive dressings were continued until standard therapies could be reinstated, surgical intervention, or healing occurred.

Results: In each of the eight cases, the hydroconductive dressings provided a solution to allow the damaged skin to sufficiently heal. Four cases from the series are depicted.

Case 1: A 3 mos. old male presented s/p resection for a bowel obstruction and subsequent complications of fistulas, wound dehiscence, infection, and feeding intolerance. The dehisced wound measured 15x7x0.5 cm. with a jejunostomy mucous fistula, and 5 fistula tracts (Fig.1a). NPWT was initially used with and without Drawtex (Fig. 1b). Later, Drawtex dressings alone were used to draw off the output (Fig.1c). This Rx resulted in wound contraction allowing definitive surgical closure.

Case 2: A 3 y.o. with infantile Crohn's Disease 2° IL-10 receptor mutation underwent a 4th bone marrow transplant necessitating Thiopeta. This agent produces burns of the skin negating use of adhesive dressings or pouches. A burn occurred inferior to the stoma (Fig.2a). Drawtex was used to control the wound and a second layer of Drawtex separated from the wound dressing was used to draw off the stomal effluent (Fig.2b). The patient has remained on immunosuppression limiting attempts to finalize wound healing, but the Drawtex has allowed control of the skin (Fig. 2c).

Case 3: A 6 mos. old (born at 27 wks gestation) with RDS and short gut syndrome required an ileostomy and mucous fistula due to cecal perforation. The incision dehisced, a bowel fistula occurred, and there was continuous dumping of liquid gastric secretions causing severe skin excoriation (Fig. 3a). Pouching was unsuccessful despite multiple attempts with different products. A combination of a liquid skin barrier and Drawtex within the incision and on the skin have decreased the skin excoriation and allowed nursing to contain the output (Fig. 3b)

Case 4: A newborn with an omphalocele, bladder exstrophy, and imperforate anus had a 1st stage repair of separation of the bladder plates from intestinal structures, and joining of the bladder halves with an end colostomy in LLQ (Fig. 4a). Challenges were to protect the open bladder from stool, keep it moist and clean, and contain the urine. Drawtex was used to outline the edges of the bladder plates to absorb urine and prevent the transparent dressing from disengaging (Fig. 4b) This setup including the ostomy pouch was changed daily

Conclusion: Hydroconductive dressings known to draw off excessive exudate, bacteria, and deleterious chemicals are useful in protecting and treating skin damaged by urinary and enteric effluent in young children.



Fig.1a

Fig.1b

Fig.1c



Fig. 2a

Fig. 2b

Fig. 2c



Fig. 3a

Fig. 3b



Fig. 4a

Fig. 4b

***Drawtex Hydroconductive Dressing, SteadMed Medical LLC
Fort Worth, Texas**