Eliminating Moisture-Associated Skin Damage: Continual Devotion to Continence Care

Nancy Muller, MBA, PhD

A n article in the May/June 2011 issue of the Journal of Wound Ostomy Continence Nursing focused attention on moisture-associated skin damage (MASD) as an etiologic factor in chronic inflammation and erosion of the skin. The authors defined MASD as “inflammation and erosion of the skin caused by prolonged exposure to various sources of moisture, including urine or stool, perspiration, wound exudate, mucus, or saliva” and spotlighted the four types of MASD commonly encountered in nursing practice: incontinence-associated dermatitis (IAD), intertriginous dermatitis, periwound moisture-associated dermatitis, and peristomal moisture-associated dermatitis.

Although the key opinion leaders who authored the paper acknowledge the concept of MASD is not new, their recommendation signifies the importance that should be placed on skin damage associated with exposure to excessive moisture and the need for further study to understand more fully the epidemiology, etiology, pathophysiology, assessment, prevention, and treatment of the four frequently occurring categories of MASD.

I personally relate to their conclusion and recommendations. While I was working (nearly 20 years ago) as director of marketing for a manufacturer of pressure-reducing support surfaces, I realized skin breakdown was likely, if not inevitable, if the patient’s incontinence was not addressed. The WOC nurses I encountered two decades ago taught me about the vulnerability of macerated skin softened by persistent exposure to urine and stool to the point of weakening and breaking the skin’s connective fibers and the subsequent development of pressure ulcers. It was largely their concern that encouraged me to enter the world of continence care as a public health educator and patient advocate.

As the body’s largest organ, the skin serves numerous functions, not the least of which is to maintain, with its moisture barrier properties, internal homeostasis. Each stratum of the skin has a unique role in protection. The skin’s pH, normally ranging from 5.5 to 5.9, suppresses bacterial growth and creates a natural moisture barrier “cloak.” The lower (acidic) pH of urine may influence the risk of developing MASD, which can be worsened by friction between the skin and garments or bed linens. When friction and occlusion both occur in skin already compromised by excessive moisture, IAD will likely be more severe and heighten the risk of skin breakdown.

MASD severity also appears to increase when the skin is exposed to loose or watery stool, more so than solid, formed stool. The former is more alkaline and contains a higher concentration of harmful enzymes. The ultimate insult on the body — the combination of these factors — is skin erosion or removal of the epithelial covering.

Each factor must be addressed separately and minimized in order to achieve success in continence care. In other words, care involves more than cleansing, moisturizing, and protecting the skin. Additional considerations include 1) choosing absorbent products that offer breathability instead of total occlusion of air flow, especially in and near skin folds; 2) using fabrics that minimize friction and shear; 3) selecting garments that reduce perspiration and heat build-up, especially in obese patients; and 4) insisting on use of protective barrier devices and products with dynamic features that supplement nursing intervention, such as those that rapidly wick away excessive moisture from the body.

MASD and skin care in general represent a wide-open frontier for research and the development of evidence-based protocols. Today, although pressure ulcers represent the single, most costly never event for hospitals, in 2008 they occurred in 394,699 patients and ran up a tab of $3.3 billion. Even if the National Pressure Ulcer Advisory Panel considers some of the ulcers unavoidable, there is plenty we all can do to reduce the incidence of MASD and thereby eliminate a fundamental set of conditions conducive to skin breakdown. We all should be working toward this goal! It starts and ends with continuing devotion to continence care.

References