Moisture lesions often cause pain and distress. A number of strategies can be adopted to prevent and treat dermatitis associated with urinary or faecal incontinence.

Causes and strategies for moisture lesions

In this article...

- How to prevent and treat moisture lesions
- The causes of incontinence
- How to contain urine and faeces

Moisture lesions, also known as incontinence-associated dermatitis (IAD), are characterised by irritation and inflammation. They occur when the perineal or perigenital skin comes into contact with urine, faeces or both, and can be extremely painful. As prolonged contact can result in tissue breakdown, increase the risk of infection and adversely affect patients’ physical and psychological well-being, minimising damage is imperative.

While incontinence can occur at any stage of life, prevalence increases with age, with 31% of older women, 23% of older men and 30-85% of nursing home residents recognised as being incontinent (Bale et al, 2004). The National Institute for Health and Clinical Excellence (2007) recognised that 1-10% of adults suffer from chronic faecal incontinence.

Causes

Little research has focused on IAD, resulting in gaps in our understanding of its epidemiology and pathophysiology (Gray et al, 2007). While the exact mechanism of IAD is unknown, factors such as change in pH, activation of proteases, transepidermal water loss (TEWL) and ageing skin are thought to be responsible for the resulting tissue damage.

The skin produces sebum that enables it to maintain a naturally acidic pH, usually between 4.0 and 5.5 (Cooper, 2011). This is often described as the acid mantle, which provides an environment that allows the normal skin flora to exist while helping to prevent colonisation by non-resident bacteria and pathogens (Rippke et al, 2002). Urine and faeces convert urea to ammonia, which destroys the acid mantle. The raised pH activates protease and lipase in faeces, which cause dermatitis (Nazarko, 2007).

Prevention and treatment

It is essential that, when patients with incontinence present, clinicians take a full history and carry out a thorough assessment to ensure an effective treatment plan can be implemented (Bardsley, 2008).

Other conditions that may appear similar to IAD include:

- Intertrigo (inflamed skin folds caused by exposure to perspiration, friction and bacterial or fungal bioburden);
- Periwound maceration (skin breakdown as a result of exposure to wound exudate);
- Pressure ulcers.

Cooper (2011) suggested the essential elements below to prevent IAD.

Routine skin inspection

IAD is characterised by inflammation of the surface of the skin with erythema, oedema and, in some cases, bullae (vesicles) containing clear exudate. In severe cases, erosion of the epidermis can also be seen. Kennedy and Lutz (1996) noted that the erythema may be patchy or consolidated (Fig 1).

Observing distribution will help clinicians to differentiate IAD from other types of tissue damage. Gray et al (2002) observed that IAD associated with urinary incontinence tends to occur in skin folds and on the labia majora or the scrotum, whereas IAD associated with faecal incontinence tends to originate in the perianal area.
with grading the degree of skin damage was no consistency in approach. To help Bianchi and Johnstone (2011) found there with satellite lesions. IAD and exhibits as a maculopapular rash Candidiasis is a common complication of severe cases, erythema may extend to the lower abdomen and scatrum (Beldon, 2008). Candidiasis is a common complication of IAD and exhibits as a maculopapular rash with satellite lesions.

When reviewing the language clinicians use to describe the degree of IAD, Bianchi and Johnstone (2011) found there was no consistency in approach. To help with grading the degree of skin damage and suggest management strategies, the National Association of Tissue Viability Nurses Scotland (2008) developed an excoriation grading tool, which includes clinical images, grades the level of excoriation and offers management advice (Fig 2). This tool may help to encourage a consistent approach in the care of patients with IAD.

Cleansing routine
In some cases, timely and appropriate skin cleansing and protection can prevent and heal IAD.

Soap and water should be avoided. Soap is made up of a mixture of alkalis and fatty acids; the alkalis in it are thought to have the potential to raise the skin’s pH, damaging the acid mantle (Beldon, 2008).

Perineal skin cleansers are the best choice for people with IAD. They come in different formats including emulsions, foams and sprays, and combine detergents and surfactant ingredients to loosen and remove dirt and irritants. Many are pH balanced and contain moisturising agents to restore or preserve optimal barrier function.

Skin protection
The aim of skin protection products is to isolate exposed skin from harmful or irritant substances; in the case of IAD, these products isolate the skin from excessive moisture, urine or faeces. Liquid barrier films and moisture barrier creams or ointments are often used.

Bliss et al (2005) compared four skin-care regimens to prevent IAD. These included: acrylic polymer-based liquid film; 43% petroleum ointment; 12% zinc oxide in 14% dimethicone; and 98% Petroleum ointment. The researchers found the incidence of IAD was low with all regimens and there was no significant difference in the development of IAD in any of them. Their results suggest that using a defined skincare regimen with high-quality products will prevent IAD.

If the condition does not improve using these measures, it may be appropriate to follow the recommendations for treating napkin dermatitis in babies and children.

Published literature suggests that when napkin dermatitis does not improve using barrier products, a weak topical steroid such as 1% hydrocortisone cream or ointment can be applied twice a day for 3-5 days. If candidiasis is present, 1% clotrimazole cream is recommended or a combined hydrocortisone-clotrimazole cream when both dermatitis and candidiasis are present (Bianchi et al, 2011; Hunter et al, 2002).

Treating and managing incontinence
The ultimate goal for any health professional caring for patients with urinary or faecal incontinence is to control bladder/bowel function (Cooper, 2011).

Causes of incontinence are numerous and multifactorial (Box 1). A multidisciplinary approach may be needed, with a continence adviser included in the team involved in planning care.

Containing urine or faeces
In patients where bladder and/or bowel control is not possible, a range of containment products are available, outlined below.

Body-worn pads: These disposable pads come in various sizes, depending on the volume of fluid expected. They are made of super-absorbent material that turns to a gel when it comes into contact with fluid, which helps lock the fluid away from the skin. It is essential to change soiled products regularly.

Urinary sheaths (male incontinence): Urinary sheaths are soft flexible sleeves that fit over the penis and attach to urinary collection systems that can be body worn, free standing or attached to the patient’s bed. They can be used intermittently or continuously. Alternatives to urinary sheaths for men include pubic
FIG 2. SKIN EXCORIATION TOOL FOR INCONTINENT PATIENTS

0 = Healthy skin
  Healthy, intact skin
  No erythema (redness)
  Clean skin with skin cleanser

1 = Mild excoriation
  Erythema (redness) of skin only
  No broken areas present
  Use durable barrier cream

2 = Moderate excoriation
  Erythema (redness) with less than 50% broken skin
  Oozing and/or bleeding may be present
  Use barrier film spray

3 = Severe excoriation
  Erythema (redness), with more than 50% broken skin
  Oozing and/or bleeding may be present
  Seek advice from Tissue Viability Nurse where available for local guidelines/guidance

Source: NATWIS (Scotland)

While there is limited clinical evidence on the efficacy of any given skin care treatment, there is good evidence to suggest that a defined skin care regimen using high-quality products minimises the damage caused by IAD.

A systematic approach to the condition should include: history taking; skin inspection; and a skin care regimen. Where possible, control treatment to regain control of bladder and/or bowel function should be included or, if this is not possible, appropriate use of a containment product.

References


