Best practice management of peristomal pyoderma gangrenosum

Anna Wallace

Current UK healthcare policy is focused on improving patient outcomes and experiences of health care (Department of Health [DH], 2013). This move towards patient-centred care is a key principle of nursing practice (Royal College of Nursing, 2010), and was further highlighted in the Francis Report into failings in healthcare provision (Francis, 2013). The benefits of effective wound care management plans — and having the nursing skills to recognise when these are not working — can be seen in improved outcomes such as better quality of life and patients returning to the workplace, which helps to reduce the burden on NHS resources, an important factor in the current economic climate. This article outlines the best practice principles involved in stoma care nursing with a particular focus on the management of peristomal pyoderma gangrenosum. The range of interventions currently used to manage this type of wound will be examined as well as the legal and ethical issues involved.

KEYWORDS:
- Wound care
- Stoma
- Pyoderma gangrenosum

In recent years, major advances in both the knowledge and practice of wound care have coincided with an increase in the incidence of wounds, due in part to the ageing UK population as well as the increased prevalence of chronic disease and comorbidities, and a rise in clinical and surgical interventions (Myers, 2004). For example, the complexity of wound healing in bariatric, paediatric, surgical and palliative care patients is a relatively recent addition to standard wound care textbooks (Braden, 2008), even though nurses have long been looking after these types of wounds in practice. At the same time, wound care is increasingly being recognised as a key area of professional nursing practice (Dealey, 2012).

This article focuses on the assessment and management of one particular atypical wound, peristomal pyoderma gangrenosum. Pyoderma gangrenosum is a particularly challenging wound type to treat, especially when it occurs around a stoma. As always, it is vital that wound care forms an integral part of the patient’s overall evaluation (Morison, 2004), and a holistic approach to wound healing is paramount. To reflect this, the author will look at pain management, medication and the emotional and psychosocial impact of living with this type of wound, alongside implications for nursing practice.

PYODERMA GANCRENOSUM

The rarity of pyoderma gangrenosum means that there is a need for clinicians to share their treatment experiences to act as a guide for future best practice. Deroo et al (2013) suggested that pyoderma gangrenosum can be mismanaged due to lack of clinical experience. In practice, for example in the case of a leg ulcer where there is an underlying disease commonly associated with pyoderma gangrenosum and/or a blue/mauve band on the wound margins, a diagnosis of pyoderma gangrenosum may still only be arrived at when the wound has not responded to standard therapy (Hampton and Collins, 2004). Similarly, Hanley (2011) described a patient treated for irritable bowel syndrome who was subsequently diagnosed with ulcerative colitis as a result of presenting to a gastroenterologist with pyoderma gangrenosum lesions on her leg.

Successful treatment of pyoderma gangrenosum depends on prompt diagnosis (Hemp and Hall, 2009), which is usually based on clinical suspicion and exclusion of other conditions, for example wound swabs and biopsy are used to exclude infection or malignancy as causes of the wound (Ratnagobal and Sinha, 2013). A wound swab/biopsy in itself will not diagnose pyoderma gangrenosum, however, as the condition does not have characteristic serologic or histologic features (Goodarzi et al, 2012).

There is no universally accepted guideline for treatment of pyoderma gangrenosum and no disease-specific therapies have been subjected to controlled clinical trial (Heffernan et al, 2007). Instead, a multidisciplinary approach to treatment is required, and is based on case reports, randomised controlled trials into various drug therapies, and previous clinical experience.

There are several variants of pyoderma gangrenosum, including ulcerative, pustular, bullous, vegetative and peristomal (Vujnovich, 2005). Each of these has a different
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are the most common issue following stoma. Peristomal skin complications, particularly in adapting to life with a physical and psychological difficulties, peristomal skin can cause significant a stoma is a life-changing event and (Lyon and Smith, 2010). Creation of treatment is intact peristomal skin to cause pain, prevent effective nurse or GP when the ulcers begin stoma care nurse, district/community gangrenosum typically present to a case, however, and in some patients peristomal pyoderma gangrenosum can develop at a later date when a stoma is in situ.

Patients with peristomal pyoderma gangrenosum typically present to a stoma care nurse, district/community nurse or GP when the ulcers begin to cause pain, prevent effective stoma appliance application, and/or cause leakage, while the main aim of treatment is intact peristomal skin (Lyon and Smith, 2010). Creation of a stoma is a life-changing event and any disruption to the integrity of the peristomal skin can cause significant physical and psychological difficulties, particularly in adapting to life with a stoma. Peristomal skin complications are the most common issue following creation of a stoma (Martins et al, 2013), and range from mild dermatitis to severe complications such as ulceration or necrosis.

Peristomal pyoderma gangrenosum occurs in approximately 2% of patients with IBD who also have a stoma (Vujnovich, 2005), and it can develop at any time after the creation of the stoma. Minor trauma or damage to the skin — known as pathergy — is a common trigger. Thus, the incidence of pyoderma gangrenosum in stoma patients may be due to a mixture of underlying disease, surgery, and skin-stripping at pouch change.

Skin-stripping
The repeated application and removal of adhesive products such as stoma pouches or wound dressings can result in the superficial epidermal cells being stripped away. This can cause an inflammatory reaction, which leads to skin breakdown (Stephen-Haynes, 2013). In one study, Williams et al (2010) reported that 68% of 80 patients with a stoma had peristomal skin problems caused by repeated application and removal of their appliance. To prevent skin-stripping and provide care that does not further harm patients’ skin (Nursing and Midwifery Council [NMC], 2015), evidence points towards the use of periwound and peristomal skin barrier protection products and silicone-based adhesive removers (Zillmer et al, 2006; Rudoni, 2008).

Leakage of faeces or urine onto the peristomal skin also has well-documented corrosive effects (Porrett and McGrath, 2005). An ill-fitting appliance may cause leakage of faeces or urine from the stoma onto the peristomal skin. If a good seal is not obtained around the stoma immediately, the corrosive effect of the effluent can cause skin irritation and excoriation (Porrett and McGrath, 2005).

Appliance shape
Convex (outwardly curved) stoma appliances are commonly used to solve the problem of obtaining a good seal, particularly over skin creases or a retracted stoma. Evidence shows, however, that the use of convex appliances can be a contributing factor in the development of ulceration such as peristomal pyoderma gangrenosum (Hanley, 2011). Convexity produces an outward curve on the pouch flange and works by pushing the peristomal area inwards and allowing the stoma itself to protrude. Unfortunately, this rigid pressure can cause pyoderma gangrenosum to erupt at the stoma site (Lyon and Smith, 2010), and caution is needed when considering convex appliances in patients with a history of pyoderma gangrenosum, peristomal varices and pressure ulcers (Farrer et al, 2010).

WOUND ASSESSMENT
Treatment of peristomal pyoderma gangrenosum begins with an accurate wound assessment in conjunction with a holistic assessment of the patient. The aim of the assessment is twofold, providing a baseline to monitor progress as well as ensuring that the appropriate wound treatment is selected (Dealey, 2012). A wound assessment framework such as TIME (Schultz et al, 2003) or MEASURE (Keast et al, 2004) should be used to ensure a formal and structured approach. Using one of these tools will assist community nurses in providing each patient with an individualised care plan as well as promoting accurate documentation in the future.
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and community. As specialist practitioners, stoma care nurses are expected to have extensive evidence-based clinical knowledge, maintain patient advocacy within the multidisciplinary team, and recognise the ‘unusual’ among more common peristomal skin problems (Black, 2000).

However, with government reforms increasingly questioning the value of specialist nursing roles (Royal College of Nursing, 2010), and care increasingly being carried out in patients’ homes (DH, 2013), community nurses will potentially encounter more patients in the future who have a stoma and need to be able to recognise any abnormalities at the stoma site.

Currently, however, the stoma care nurse is commonly the direct point of contact for a patient presenting with peristomal pyoderma gangrenosum (Hanley, 2011). On examining the wound, and before treatment can begin, the stoma care nurse must determine whether the peristomal pyoderma gangrenosum should be classed as limited (mild disease) or severe (widespread disease) (Vujnovich, 2005). If not treated promptly, peristomal pyoderma gangrenosum ulcers can rapidly enlarge and mimic a necrotising infection (Burton, 2005).

Importantly, the patient must be informed that the ulcer may take several weeks to heal; this can take as long as 2–4 weeks for superficial peristomal pyoderma gangrenosum and up to 4–6 months for a more severe ulceration (Vujnovich, 2005). Peristomal pyoderma gangrenosum can reoccur in up to 50% of patients (Lyon and Smith, 2010), therefore it is important that the nurse is able to negotiate realistic goals with the patient as the ulcer may take a long time to resolve.

The stoma care nurse is in an ideal position to ensure timely review of the wound (usually on a weekly basis) and provide ongoing psychological support. Treatment must be balanced with the need to maintain an intact appliance and the stoma care nurse can provide expertise around leak-free pouching systems and alternatives to convex systems, such as a flat-flanged pouch with a washer, or a two-piece pouching system with security belt if this is required. Overall, management of the patient’s peristomal pyoderma gangrenosum should always be decided on an individual basis and requires a multidisciplinary approach.

**TREATMENT**

There is general consensus around the best practice treatment options for peristomal pyoderma gangrenosum in the literature. Treatment should initially aim to control any underlying disease (Burch and Sica, 2008), and prompt referral to a gastroenterologist and/or dermatologist should be considered. Subsequently, a combination of local wound care and, potentially, systemic medication is required (Schofield, 2013).

**Superficial disease**

For patients presenting with superficial peristomal pyoderma gangrenosum (where the lesions are under 2cm in diameter), topical/local treatments are advised for 2–4 weeks. If there is no response, systemic treatment can be added. A variety of steroid creams/ointments such as Trimovate® cream (GSK) (containing clobetasone butyrate, nystatin and oxytetracycline calcium) and Betnovate® (GSK) (containing betamethasone) have been advocated in the literature. However, Hanley (2011) warned that specific topical treatments may not be licensed for use under occlusive dressings such as stoma pouches. Manufacturers’ recommendations should therefore always be reviewed before starting any topical treatment.

Haelan tape® (Typharm) (also known as fludroxycortide tape) is also recommended in the literature (Hanley, 2011). This method is especially useful as it is not affected by occlusion, and being non-greasy does not impair stoma pouch adhesion. It is also easy to apply at pouch change, thus can be administered by the patient, and delivers a regulated dose over 24 hours. Patients have also reported immediate pain relief on application.
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Pain management

Effective pain management is an essential component of holistic wound care (McNaughton and Nimmo, 2004). Peristomal pyoderma gangrenosum is a particularly painful wound, and indeed, this pain is an aid to diagnosis. In practice, analgesia would be managed by the GP or medical team, but it is also the responsibility of the community nurse looking after the wound to ensure referral for adequate analgesia where necessary, and to ensure that timely analgesia is administered before the patient’s pouch is changed.

PATIENT EXPERIENCE

There is little or no qualitative research into the actual lived experience of people with peristomal pyoderma gangrenosum. In the current context of patient-centred healthcare, however, qualitative research is contributing more to the nursing evidence base across many fields of nursing (Barker, 2013). Further research into the patient ‘journey’ of those with peristomal pyoderma gangrenosum, as well as further investigation of the outcomes, would be beneficial in understanding this atypical wound.

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for practice, particularly the role of the specialist nurse. It is usually the stoma care nurse who takes the lead in managing patients with this type of wound, mainly because of their previous experience and skill in maintaining a well-fitting ostomy appliance.

However, with increasing amounts of patients being cared for in primary care and in their own homes, it is crucial that community nurses become more familiar with this rare but debilitating wound presentation.

REFERENCES


