Managing and treating chronic wound pain

As greater emphasis is given to the promotion of effective, evidence-based health care (Department of Health (DH), 2005, 2006), a tissue viability interest group was established in Bournemouth to develop an educational resource pack to complement a new wound care formulary. This initiative included a variety of aspects of wound management and related specialties. Particular priority was given by the group to including a section on the assessment and management of wound pain, because it has been claimed that chronic wound pain has been frequently ignored or poorly managed, resulting in prolonged suffering (Moffatt et al, 2002). Douglas and Way (2006) discussed the assessment of wound pain in a previous article. This article considers management.

Studies have demonstrated that chronic wound pain has a significant impact on patients and their carers’ quality of life (Douglas, 2001; Moffatt et al, 2002; Douglas, 2006). Chronic wound pain predominantly affects elderly people (Baker and Stacey, 1994). Since Bournemouth has a large population of people over the age of 65 years—21% compared to 16% for England (Office for National Statistics, 2001)—the tissue viability interest group was keen to raise awareness of the wider issues relating to wound pain, and to encourage practitioners to gain a greater understanding of wound pain assessment and management.

Professional issues

Although key documents on assessment and management of chronic wound pain have been published (World Union of Wound Healing Societies (WUWHS), 2004), it can be argued that pain management remains a neglected area of clinical practice. Hofman (2006) suggests that practitioners often give pain management low priority because of a preoccupation with treating the wound, lack of time and/or ignorance. This raises some serious issues about the adequacy of pain assessment and effective pain-relief strategies (King, 2003a, 2003b). Causing avoidable pain or further tissue damage, for example, skin stripping as a result of outdated clinical practice, is considered a professional and a humanitarian issue (Nursing and Midwifery Council, 2004; Hollinworth, 2005).

Establishing the underlying cause

Treating the underlying cause of pain, where possible, is of paramount importance when attempting to manage chronic wound pain (Sibbald et al, 2006). It is therefore recommended that practitioners adopt a holistic approach to wound assessment.

Patients with venous hypertension can present with a variety of associated pain symptoms. Bruce et al (2002) reported that 43% of patients with lipodermatosclerosis experience pain during the day and night, even without ulceration. However, it is necessary to differentiate nocturnal pain, as patients with arterial disease have a tendency to hang their foot over the bed at night to gain relief.

Compression bandaging, particularly if applied incorrectly, and leg elevation have been reported to contribute to pain (Hofman et al, 1997, Douglas, 2001). However, some studies have also reported that leg elevation and compression therapy relieve pain (Hofman et al, 1997; Douglas, 2001; Charles, 2004).

It is important that the practitioner addresses any local factors that could cause wound pain. These could include infection, excessive dryness or excessive exudate, oedema, maceration or dermatological problems (WUWHS, 2004). Practitioners have not always acknowledged that irritable varicose eczema can have an impact on the patient’s pain, or recognized the significance of contact sensitivity caused from topical applications (Douglas, 2001; Cameron, 2006).

Many elderly patients do not openly discuss their pain (Flanagan, 2006), and some cultures encourage the denial of pain. Therefore it is essential that practitioners observe closely for non-verbal signs of pain and ask patients open-ended questions about contributing pain factors such as:

▶ Can you describe your pain?
▶ When is the pain worse?
Managing pain at dressing changes

There is increasing evidence that patients experience higher levels of chronic wound pain during nursing interventions and dressing changes (Douglas, 2001; Hollinworth, 2002). A consensus document which explored strategies to minimize pain at wound dressing-related procedures proposed that the need for adequate preparation is central to effective pain management (WUWHS, 2004). Practitioners are urged to promote a stress-free environment, free from noise and interruptions, and to actively involve the patient throughout the procedure. The recommendations of two key documents on assessing and managing pain are listed in Table 1.

Dressing selection

The importance of selecting an appropriate dressing cannot be overestimated. Many new dressings have been marketed in the last few years. In 2004, Butcher estimated that there were over 500 wound care products available to practitioners, and this number would be considerably larger today. Such growth has not only led to confusion for patients, carers and practitioners (Douglas, 2001; Douglas, 2006) but also presents challenges for practitioners to maintain professional knowledge and expertise (Westwood, 2000). Nonetheless, it is important that practitioners correctly match the parameters of a dressing to the key characteristics of the wound and surrounding tissues to manage wound pain effectively (WUWHS, 2004).

It has been well documented that traditional dressings aggravate wound pain and contribute to tissue damage (Briggs and Torra i Bou, 2002; Bethell 2003), as they have a tendency to dry out quickly and adhere to the wound bed. Modern dressings containing adhesive borders can also increase pain as a result of extensive skin stripping. Studies have shown that these dressings can cause significant distress to patients and carers at dressing changes (King, 2003a, 2003b; Douglas, 2006) (Figure 1). Cameron (1995, 2006) advocates avoiding adhesive products on fragile elderly skin, oedematous tissue and eczematous skin. This recommendation has been adopted by the local leg ulcer guidelines and has significantly reduced problems associated with skin stripping.

![Figure 1. Example of a leg ulcer which caused severe pain in surrounding excoriated tissue as a result of excessive exudate](image-url)

**Table 1. Strategies that may help reduce pain at dressing changes**

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<tr>
<td>Involve and empower the patient</td>
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<td>Promote stress-free environment</td>
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<td>Be aware of patient's current pain status</td>
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<tr>
<td>Avoid pain triggers and where possible, use pain reducers</td>
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<td>Adopt a calm and confident approach</td>
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<td>Consider pre-medicating before dressings</td>
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<td>Encourage patient controlled techniques, e.g. to focus on slow rhythmic breathing or listening to music</td>
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<td>Offer patients 'time out' during procedure</td>
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<td>Avoid any unnecessary stimulus to the wound, in particular, avoid wiping across the wound</td>
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<td>Observe wound and surrounding skin for signs of any local factors causing pain</td>
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<td>Ensure wound irrigation solutions are at room temperature</td>
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<td>Avoid excessive pressure from dressings and bandages</td>
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<tr>
<td>Follow manufacturers' instructions when using wound products</td>
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<td>Select atraumatic dressings to reduce pain and trauma and promote moist wound healing</td>
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<td>Select dressings that remain in situ for longer periods, if possible</td>
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<td>Evaluate procedure—could you have done anything to reduce pain next time?</td>
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<tr>
<td>Consider more advanced non-pharmacological interventions</td>
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Modern wound dressings can also increase wound pain if not used appropriately. For example, an alginate dressing applied to a dry wound or a hydrophilic dressing such as manuka honey creates an osmotic pull (Hollinworth, 2000). Flanagan (1997) recommends that practitioners use moist wound dressings to ‘bathe’ the nerve endings when attempting to reduce wound pain.

The wound care industry has increasingly become aware of the need to develop dressings to alleviate pain. Atraumatic dressings using soft silicone ‘SafeTac’ technology have been successfully used on compromised tissue (White, 2005). Another study demonstrated that hydrogel sheets such as ActiForm Cool reduced leg ulcer pain (Young and Hampton, 2005). In clinical practice, the author has successfully used this product to reduce severe wound pain. After applying this dressing to a patient experiencing severe chronic leg ulcer pain who had been self-administering opiates 4 hourly for partial relief, the pain eased immediately. It is important to note that this patient has never needed any further opiates since initial application and, after a 3-year leg ulcer history, has now healed.

Another development is a dressing that attempts to suppress the chronic inflammatory response and associated wound pain. A foam dressing, which is incorporated with an active analgesic, ibuprofen, has been shown to be effective in reducing wound pain (Jorgensen et al, 2006).

**Wound irrigation**

Wound cleansing continues to be a clinical practice issue. It is important for practitioners to recognize that wound pain can be exacerbated by wound cleansing. Gentle irrigation using a warm isotonic solution is recommended (Cuncliffe and Fawcett, 2002). Hollinworth (2003) strongly urges practitioners against wiping the wound with gauze as this can be very painful for the patient, and causes tissue damage. After irrigation it is important to protect compromised periwound skin from excoriation with an appropriate barrier (Bishop et al, 2003).

**Pharmacological aspects of managing pain**

Before prescribing analgesia, it is imperative that practitioners undertake a thorough pain assessment to establish the underlying cause and consider whether any local factors such as infection, exudate or maceration are contributing to the patient’s experience of pain. The practitioner needs to distinguish between the clinical features of nociceptive and neuropathic pain (Douglas and Way, 2006).

Practitioners need to control background and incident pain quickly with appropriate analgesia; this is central to managing pain effectively (WUWHS, 2004). The WUWHS advocates using the World Health Organization (WHO) analytic pain ladder, which ranges from simple analgesics such as paracetamol, to opiates (Figure 2). Such a framework enables practitioners to titrate the strength and dose of the analgesics to the level of the pain (Briggs and Torra i Bou, 2002). It is important that practitioners encourage patients to take analgesics regularly as a preventative strategy, as opposed to waiting for the pain to become intolerable. However, the final choice of analgesia prescribed should be dictated by the patient’s history, the pain assessment and the clinical setting (Briggs and Torra i Bou, 2002; Heafield, 1999).

**Neuropathic pain**

Effective management of neuropathic pain requires a different approach. Non-analgesic drugs such as tricyclic antidepressants and anticonvulsants are recommended for this type of pain, as an additional therapy. Amitriptyline and gabapentin are examples of such drugs used in clinical practice. They should only be prescribed after a thorough pain assessment and with consideration of the patient’s medical history and other prescribed medications (WUWHS, 2004).

Entonox is a self-administered analgesia comprising 50% nitrous oxide and oxygen gas. It is becoming increasingly popular as an effective rapid-onset analgesia. It is only recommended for short periods, for example, as an effective pain relief during a dressing procedure (Briggs and Torra i Bou, 2002).

**Non-pharmacological options**

Non-pharmacological interventions can play a significant role in reducing the patient’s anxiety and level of pain. However, a study by Matthew and Malcolm (2007) has reported that nurses had little knowledge about such approaches. Using heat or cold can be very effective in reducing pain but the study demonstrated that the majority of nurses were unaware of such simple measures.

Empowering patients to take control of their pain, by reassuring and offering ‘time out’ during the procedure is now recognized...
Clinical WOUND CARE

KEY POINTS

 ► Management of pain remains a neglected area in wound management
 ► Treating the underlying cause of wound pain is imperative to effective pain management
 ► Practitioners need to consider a combination of pharmacological and non-pharmacological strategies to reduce wound pain at dressing changes

as an effective approach to pain management (Adams and Field, 2001). Improved communication enhances the patient's sense of control and encourages the development of active coping strategies (Douglas, 2001; Douglas, 2006). Ongoing communication with the patient is a crucial factor to effective management of chronic wound pain (Flanagan, 2006). Moreover, it is imperative that practitioners attempt to reduce and manage patient anxiety, and consider alternative approaches such as diversional and relaxation therapies (Melzack and Wall 1988), music therapy (Angus and Faux 1989) and distraction through interactive, computerized virtual reality (Hoffman et al, 2000).

Conclusions

A number of practical measures can help practitioners manage chronic wound pain more effectively in the context of a greater need for an interprofessional and collaborative approach to pain management (Briggs and Torra i Bou, 2002; WUWHS, 2004). It is therefore imperative that practitioners listen effectively to the patient's pain experiences and remember that pain is whatever the experiencing person says it is, and exists whenever he/she says it does (McCaffery, 1983).

Conflict of interest: none

References


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