

# Patient story: coping with and treating a radiation dermatitis wound

## KEY WORDS

- ▶ Honey barrier cream
- ▶ Honey hydrogel dressings
- ▶ Proton beam radiotherapy
- ▶ Radiation dermatitis

Cancer treatment itself is challenging but severe skin complications from radiotherapy can further shake patients' resilience and stretch professional expertise. Dan Porter had treatment for a recurrence of the cancer he'd survived 10 years ago but, unlike the previous time, radiotherapy left Dan with radiation dermatitis that deteriorated into an excruciating wound. Medical staff tried their best with what they had available for Dan's wound, yet a chance encounter finally found him a new and effective treatment, and his strength of character helped him through.

Dan first had cancer in 2005, aged just 32, when he was diagnosed with an adenoid cystic carcinoma (ACC) behind his right cheekbone. His treatment involved a complex operation, in which he lost his right eye, cheekbone and upper palette, and he received chemotherapy and radiotherapy. The radiotherapy to Dan's face caused soreness but no serious skin damage. Yet 10 years later, Dan's returning cancer and the ensuing radiotherapy led to a serious, hard-to-treat wound.

Having heard of the improved survival of patients receiving proton beam radiotherapy, Dan was delighted when the NHS agreed to fund treatment in Germany, which he started in May 2015. This treatment cleared the primary tumour, but it did cause ulcers in his mouth, which made eating and speaking difficult and painful. However, Dan's most pressing need as he prepared to return to the UK was for surgery, chemotherapy and radiotherapy to treat the secondary tumours in his lymph glands.

Dan's post-surgical radiotherapy in the UK at first resulted in a radiation site that was red, stung and was tender and sensitive. During week 3 of the 7-week radiotherapy course, this site became very painful as it opened up and infection took hold. The front and sides of Dan's neck and underneath his jaw presented with ulcers, blisters and a heavily exuding wound.

### Initial wound treatments

For his wound, Dan received oral antibiotics and topical silver sulphadiazine cream. At first the staff treating Dan said such a skin reaction was to be

expected and he accepted he'd have to live with it for a few weeks. He applied the silver sulphadiazine cream daily and hoped for the best. As the end of his radiotherapy course drew nearer, Dan's neck wound became excruciating, to the point where his neck pain exceeded the cancer pain.

After 4 weeks of applying the cream, Dan saw no improvement in the skin's condition; in the wound area, levels of slough and exudate remained high, with large areas of necrotic tissue, skin irritation, and a strong, overpowering odour.

### The impact of a radiation dermatitis wound

Dan's attitude was that as long as he kept his mind healthy and focused on the positive, he'd plough through this tough situation. The unremitting pain he was experiencing became the hardest challenge in his treatment. Everyday activities such as sleeping resulted in him sticking to the pillow, with widespread exudate and blood leakage from the wound to his bedding. When he put on a shirt, the collar stuck to his neck. At this stage everything became a struggle. Washing was difficult. Going out was difficult. The stares from strangers on the street affected his confidence, and he felt painfully conscious of his obvious and nasty neck wound.

The cream didn't work so he stopped using it and the dressings didn't help either. The dressings stuck when they had to be removed, taking the scab with them, causing more pain and reopening the wound. By this stage, the pain was affecting his

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Dan's radiation burns at the start, during and at the end of the 7-day treatment with honey hydrogel

ability to stay positive, and he experienced some uncharacteristically depressing times.

**Experience with health and medical staff**

The staff in charge of helping Dan with his neck wound included oncologists in Sheffield and a district nurse who visited to monitor his condition and gave Dan dressings when he asked for them. Although his situation was tough, the proton beam treatment funding and the happy, positive attitude of staff made it easier to bear. While the staff he saw did their best, Dan didn't see any tissue viability nurses. The large wound area presented challenges for applying any topical dressing as it required multiple dressings that led to greater discomfort and potentially ineffective coverage. The neck area is often difficult for dressing applications as a large degree of head and neck movement are necessary.

**A chance encounter**

Around 3 weeks after he first started living with an open wound, Dan's wife bumped into a friend of his who mentioned a new honey hydrogel dressing (Medihoney® HCS) that might help; the friend subsequently obtained some for Dan. The honey hydrogel dressings he obtained were large, at 20cm x 20cm, and designed for large wounds, such as burns. Dan applied the first dressing on 3 October 2015 and reported immediately feeling the benefit as it soothed and cooled his pain.

**Dressing changes and healing**

Dan had his first honey hydrogel dressing change 36 hours after application, during a routine hospital visit. Given his experience of the pain of wound dressing removals, Dan felt panicky when he was due for a check-up at the hospital. He assisted dressing removal by showering prior to his appointment. Yet to his surprise, he didn't find dressing changes painful as the dressings started to come away after about 2 days and were much easier to remove than those he'd discontinued. The honey hydrogel dressing did not adhere to the wound area; its removal was atraumatic due to low contact adhesion to the healthy surrounding skin. A single dressing covered the whole wound area, eliminating the extra time that would have been needed to change four or five smaller dressings. The shorter dressing change time resulted in increased comfort.

As soon as the sheet was off Dan felt the excruciating pain from his open wound again; that pain resolved into relief as soon he reapplied the sheet. At this first dressing change, substantial areas of necrotic tissue had been removed, and slough and exudate levels were reduced compared with before.

Dan reapplied the honey hydrogel dressing 48 hours and 96 hours later to maintain scab formation. While wearing the honey hydrogel dressing, Dan felt confident going outside as the dressing covered the whole wound area and was a discrete colour. The dressing was also comfortable to wear as it flexed enough to enable free head movement and prevent further skin trauma. This dressing's coverage enabled Dan to wear clothes that hid the wound yet avoided cloth adhering.

After 7 days of treatment Dan was able to cease using the dressing. When the final dressing was removed on 10 October 2015, exudate levels were very low, and slough, necrotic tissue and the odour had disappeared. Dan subsequently applied honey barrier cream (Medihoney®) twice daily. Within 2 weeks of starting on the large dressings and barrier cream, the wound had nearly disappeared.

**Treatment results**

Eight months down the line, Dan's wound pain has completely gone. Some residual redness remains in the area but this is only visible on close inspection. Importantly, Dan is also free from cancer. Yet Dan hasn't forgotten his journey and continues to use his experience to help others.

**Moving on**

Dan used his first experience of cancer 10 years ago to start a local cancer charity. He continues to run the charity, which raises money for local cancer patients who need help to fund their travel and stay for treatment abroad. Dan also talks to patients who, like he did, are going through a lot of surgery.

Dan's philosophy is that he tries to stay positive and looks forward not back. He tells doctors he doesn't want to listen to or focus on any negative statistics or time frames they give about the average person; he finds strength in focusing on how they'll help him recover. He feels that as soon as a person starts to do something and read information for themselves, they start to feel empowered and this helps them through.

