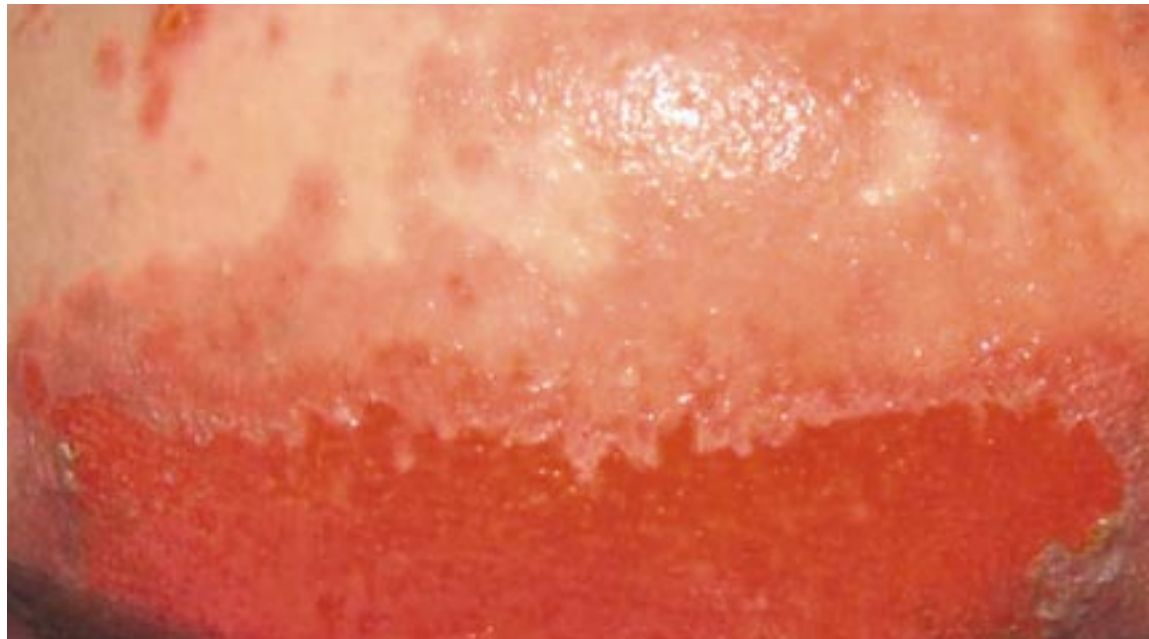


Radiation Injury

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Introduction

Wounds in severely ill patients such as end-stage cancer patients are a great challenge for the caregiver. The necessity of providing a pain free ulcer care and dressing the wounds in such a way that the patient has as good quality of life as possible, are important.

History and findings on admission

The patient in this case has end-stage pancreatic cancer. She suffered a pathological fracture of the thigh bone at the hip. A pathological fracture means that there is a cancer metastasis in the bone that weakens it so eventually it breaks. Treatment of such a fracture is to radiate the bone metastasis so the tumor disappears, this is possible because bone can tolerate radiation much better than the cancerous tissue can. The soft tissues in the radiation fields are sometimes damaged which can result in a radiation burn.

In this case the patient's case was further complicated by a general skin reaction of the type erythema multiforme. The end result was sloughing off of the epidermis (see illustration) at the site of the radiation injury on the buttock and in the inguinal area, leaving a raw tender surface quickly developing a superficial easily bleeding granulation tissue. Injuries of this kind can be classified as second degree burns.

Treatment

When first seen by us, the wounds were dressed with vaseline gauze, that easily got stuck in the wound surface, causing pain when the patient moved in the bed, and severe pain at dressing changes. The patient was immersed in permanganate baths to ease the pain at removal of the gauze. Photographs 1 and 2 show the buttock area and the inguinal area. Photograph 3 is a close-up and might show the imprint of the gauze in the wound bed.

At this stage treatment with Cutimed® Siltec silicone dressings was initiated. Even if the wound was very painful the damage to the skin was mostly to the epidermis, outer skin layer. It was the gauze that had made healing difficult. In wounds of this type the epidermal cells migrate on to the wound not only from the wound edges but from the hair follicles that still are intact in the dermal skin. Using atraumatic dressings in this setting is extremely important for two reasons:

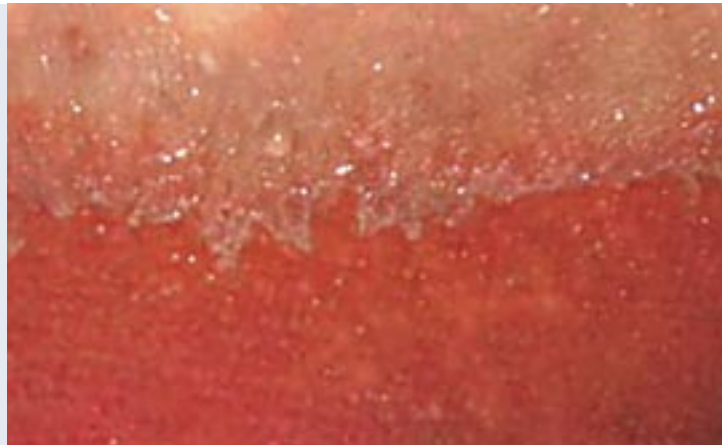
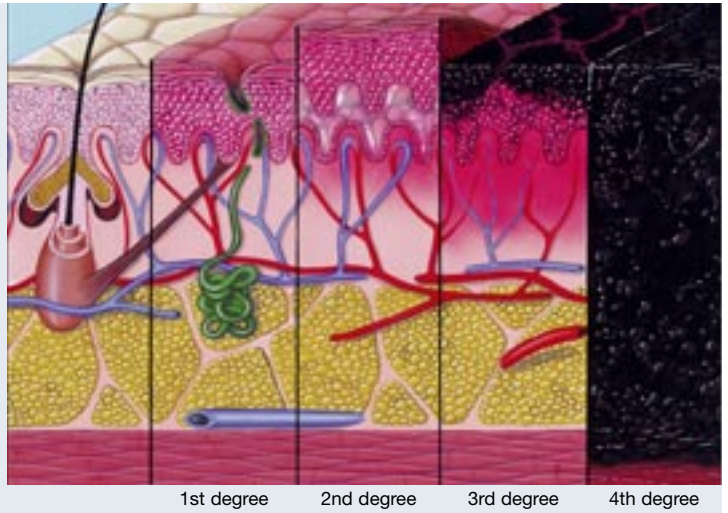
1. The extremely tender wound surface is sensitive and elicits severe pain when traumatized. With the atraumatic Cutimed® Siltec dressings this was not a problem.
2. The migrating epidermal skin cells are very loosely attached to the wound surface when the first layer is covering the wound. Therefore an atraumatic removal of the dressing is important to leave this process undisturbed. Otherwise the skin cells are stripped off the wound bed repeatedly.

Photographs 4 to 6 are taken five days after the first photos and show a complete healing in the inguinal area and partial healing in the buttock area. Photograph 6 is a close-up and shows how the islands of epidermis migrate from the hair follicles.

Summary

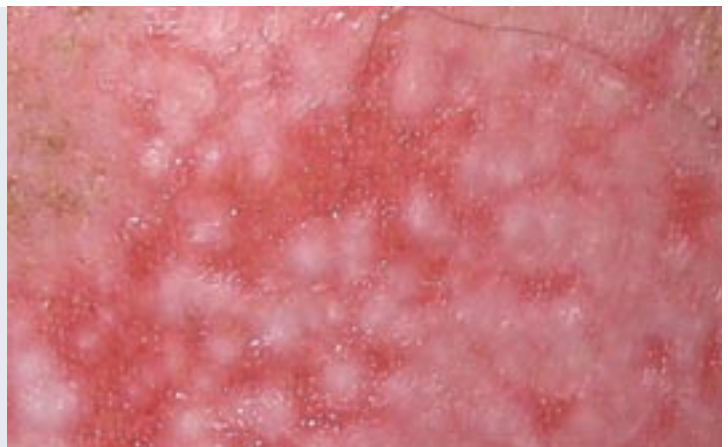
Wounds like this are not all that common. They appear however in burns and blistering diseases and in some cases in a superficial leg ulcer when it gets infected with pseudomonas bacteria. To see such a difference as in this case is of course uncommon but serves to make the point how important atraumatic wound dressings are for both, the healing progress and the patient's quality of life.

The classification of burns



Photographs 1-2
Buttock area and the inguinal area after removal of gauze

Photograph 3, close-up
Imprint of the gauze in the wound bed



Five days later: Photographs 4-5
Complete healing in the inguinal area and partial healing in the buttock area

Photograph 6, close-up
Islands of epidermis migrate from the hair follicles

Author

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