

## SCALE Wounds: Unavoidable Pressure Injury

Diane L. Krasner, PhD, RN;<sup>1</sup> and Thomas P. Stewart, PhD<sup>2</sup>

Wounds 2015;27(4):73-82

<sup>1</sup>Wound & Skin Care Consultant;  
<sup>2</sup>State University of NY at Buffalo,  
Buffalo, NY

Address correspondence to:  
**Diane L. Krasner, PhD, RN**  
dlkrasner@aol.com

*Disclosure: The authors disclose no financial conflicts of interest. Dr. Krasner and Dr. Stewart are members of the Wounds Editorial Advisory Board and Dr. Stewart serves as editor for the journal's Unusual Wounds department. As such, neither author took part in the peer review process for this manuscript.*

**Abstract:** Skin Changes at Life's End (SCALE) wounds include wounds of many underlying etiologies that accompany the dying process. These wounds occur due to unmodifiable intrinsic and extrinsic factors unique to each individual. This article describes the case of a dying patient who sustained a skin tear that deteriorated into a SCALE wound that meets the criteria for a National Pressure Ulcer Advisory Panel unavoidable pressure injury.

**Key words:** SCALE wound, unavoidable pressure injury, palliative care, National Pressure Ulcer Advisory Panel

**S**kin Changes at Life's End (SCALE) is a concept that was introduced in 2009 to describe a group of unusual wounds that can occur at the end of life.<sup>1</sup> These wounds may present as classic pressure ulcers, deep tissue injury, unavoidable pressure injury, ischemic wounds, mottling, or tumors—essentially a whole range of wound types that appear in people who are in the dying process. The first documented connection between pressure ulcers and dying patients in modern health care literature was made by Jean-Martin Charcot who described the *decubitus ominosus* in his 1877 text *Lecture on Diseases of the Nervous System*.<sup>2,3</sup> Charcot described 3 types of decubitus and identified the *decubitus ominosus* as the one that presaged death.

Some SCALE wounds are examples of unavoidable pressure injuries, as discussed by Edsberg and colleagues.<sup>4</sup> In dying patients, SCALE pressure injuries occur due to a combination of nonmodifiable intrinsic and extrinsic risk factors unique to each individual that make him or her susceptible to pressure, friction, shear, deformation (eg, stress and strain), hemodynamic instability, critical ischemia, and/or reperfusion injury. A combination of these mechanisms, unique to each patient, are the underlying cause of SCALE pressure injury that accompanies the dying process. The 2014 National Pressure Ulcer Advisory Panel Consensus Statement #11 states, "Terminally ill individuals who become immobile are at increased risk for unavoidable pressure ulcers."<sup>4</sup>

### The Unavoidability of SCALE Wounds

Due to their complex underlying pathology and the lack of understanding of the mechanisms surrounding SCALE wounds at this time, these wounds are generally considered to be unavoidable<sup>4</sup> provided the stan-

**KEYPOINTS**

- Skin Changes at Life's End (SCALE) is a concept that was introduced in 2009 to describe a group of unusual wounds that can occur at the end of life.<sup>1</sup>
- These wounds may present as classic pressure ulcers, deep tissue injury, unavoidable pressure injury, ischemic wounds, mottling, or tumors.
- The goal of SCALE wound research is to develop the means for early detection and prevention and for the development of effective treatment protocols that can reverse this phenomenon.

dard of care was met for pressure relief, topical treatment, and nutritional support as appropriate for the individual patient. Like other ischemic events related to alterations in perfusion, such as heart attack, the goal of SCALE wound research is to develop the means for early detection and prevention and for the development of effective treatment protocols that can reverse this phenomenon. In the interim, SCALE wounds are usually considered unavoidable and unable to heal. The SCALE Consensus Document Statement 1 states: “Physiologic changes that occur as a result of the dying process (days to weeks) may affect the skin and soft tissues and may manifest as observable (objective) changes in skin color, turgor or integrity, or as subjective symptoms such as localized pain. These changes can be unavoidable and may occur with the application of appropriate interventions that meet or exceed the standard of care.”<sup>1</sup>

**Case Study**

Mrs. S. was a 92-year-old long-term resident of a skilled nursing facility (SNF), Rest Haven-York in York, PA. In the last months of her life she was in the late-stage of Alzheimer's disease, immobile, contracted, and incontinent. As a result of her cachexia, Mrs. S. was transferred by her primary care physician to an acute care facility for a work-up at the request of the patient's family and power of attorney. While there, she developed a full-thickness coccyx pressure ulcer. Tape from the pressure ulcer dressing caused a large skin tear to the left buttock. On readmission to the SNF, the skin tear to the left buttock was maroon and showed evidence of pressure injury (Figure 1). Within several days of readmission, the skin tear evolved into a full-thickness SCALE wound—as signaled by the rapid wound deterioration—with eschar (Figure 2).

Mrs. S. was placed on hospice and palliative wound care and a topical enzymatic debriding agent was start-



**Figure 1.** The patient's wound upon readmission to a skilled nursing facility with a stage 4 coccyx ulcer and maroon-colored skin tear to the left buttock.



**Figure 2.** The skin tear evolved into a Skin Changes at Life's End Wound with eschar within days of admission.

**KEYPOINTS**

- A 92-year-old patient with late-stage Alzheimer's disease developed a full-thickness coccyx pressure ulcer.
- Tape from the pressure ulcer dressing caused a skin tear, which rapidly deteriorated into a full-thickness Skin Changes at Life's End wound with eschar (Figure 2).
- The patient was placed on hospice and received palliative wound care.



**Figure 3.** At this stage, the patient was in hospice care. The eschar was substantially debrided, but the Skin Changes at Life's End wound continued to deteriorate.



**Figure 4.** The wound 2 days prior to the patient's death, with large, full-thickness Skin Changes at Life's End wound.

ed daily. She rested upon a pressure-relieving support surface. The eschar was substantially debrided, but the SCALE wound continued to deteriorate (Figure 3). Two days before her death, Mrs. S's wound deteriorated into a large, full-thickness SCALE wound (Figure 4).

## Discussion

Mrs. S. was in the end stages of her life. Unfortunately, she suffered a large tape-induced skin tear over her left buttock during work-up for cachexia in an acute care

## KEYPOINTS

- The wound care plan of care for a person with a Skin Changes at Life's End wound must be consistent with the patient's overall plan of care.<sup>5</sup>
- Dying patients and their wounds require careful assessment to determine each patient's biopsychosocial needs.

facility. Upon readmission to the SNF, Mrs. S was placed on hospice and palliative wound care that included the use of a pressure relieving support surface. Nonetheless, the injury rapidly progressed into a SCALE wound.

The wound care plan of care for a person with a SCALE wound must be consistent with the patient's overall plan of care.<sup>5</sup> In this case, the goal was to provide comfort and relieve pain and suffering at the end of life. Holistic care for Mrs. S. meant changing her turning schedule from every 2 hours to every 4 hours side-to-side to minimize the pain of frequent turning and repositioning. A foam dressing was changed on an as-needed basis, and the patient was provided with a peaceful and dignified death.

## Conclusion

In conclusion, SCALE wounds challenge clinicians and wound care providers to carefully assess dying patients and their wounds, to determine each patient's unique biopsychosocial needs, and to develop individualized plans of care that promote comfort and reduce the pain and suffering that can occur at life's end.

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