Closed but not healed

Author:
Joyce Black

The final step in secondary intention healing is contracture of the wound. Myofibroblasts and fibroblasts lead to contracture of the wound bed and create a scar. Scars matures over the course of the year following the injury. During that time, the scar is friable often injured by shear and pressure. While these patients have a closed wound, the wound is not healed and neither is the patient.

One of the most significant areas of the body that closes with friable scar is the sacrum. The sacrum is not covered with mobile tissue and the contractile scar that forms is painful when everyday activities are carried out. Patients complain of pain when they sit, dress or bend. Their wound is closed but they are reminded of it several times a day, so they are not healed *[Figure 1]*. For both sensate and insensate patients, the scar is prone to reulceration *[Figure 2]*.

Efforts to control the formation of contracture is often done with burn patients, but seldom, if ever, conducted in patients with sacral pressure injury. When negative pressure wound therapy (NPWT) is used to assist healing of the sacrum, the wound bed fills with granulation tissue. At that point in time, NPWT has served its purpose and the tissue is allowed to reepithelialise and scar closed. Is there an additional step that could be used to strengthen scar formation? Create a more mobile scar? Create a scar that is more resistant to reinjury?

Flaps can be used to close sacral pressure ulcers and because they supply healthy tissue the wound is actually healed. But not all patients are eligible for flaps. Patients with high anaesthetic risk (American Society of Anesthesiologists [ASA] over 3), current tobacco use, high likelihood of nonadherence to after-care restrictions, severe malnutrition, uncontrollable spasms and those not able to secure needed supplies, such as beds or wheelchair cushions, may not be candidates for flaps. In general, flaps are not advised unless all the issues that lead to ulceration are controlled first.

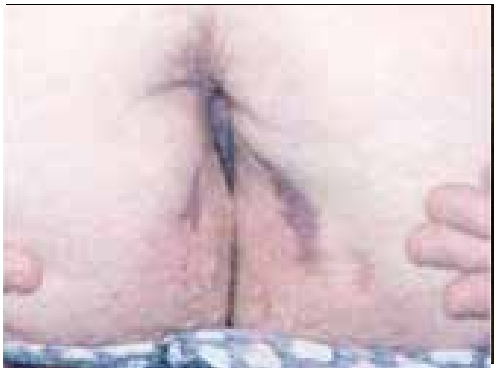

Figure 1. Painful scar following secondary healing of a sacral pressure ulcer.

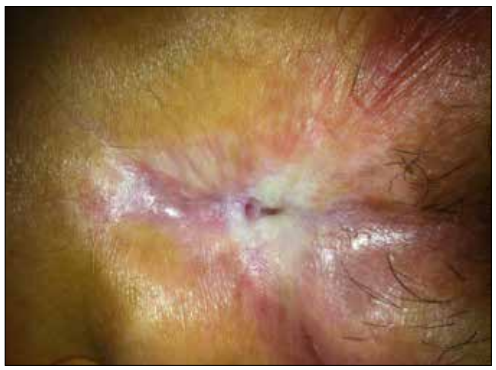

Figure 2. Reulcerated scar on the sacrum allowed to close secondarily.

Today there are two methods to close sacral pressure ulcers. One is as old as mankind — the formation of scar. The other is 50 years old — the use of musculocutaneous flaps. Neither is perfect. Can we perhaps focus research attention on better methods to heal these patients? We'd love to hear your ideas on this subject or else on any research that you have undertaken or are currently undertaking, so please do contact the editor, Adam Bushby, via email: abushby@omniamed.com. WINT

***Joyce Black** is Professor, College of Nursing, University of Nebraska Medical Center, Omaha, Nebraska, US*