

Patching Miss Tina

by Zoe Shepherd WOCN (Certified Wound Nurse) and Rose Mary Pries

It was a typical Friday afternoon; home care nurses were ordering supplies for patients being discharged over the weekend. The company president answered a wound care call. "Do you have an enterostomal therapist who might consult about a wound healing problem in an Irish Wolfhound?" The answer was "yes!" The call was transferred to me, Zoe Shepherd, one of three certified wound care nurses (WOCN) at Medical West Healthcare in St. Louis, MO. I have three Bassett Hounds and often consult with veterinarians on animal wound healing problems. The call concerned "Tina" (Ch. Wild Valley Fancy Free), an almost twelve year old IW.

Tina is arthritic, has hindquarter mobility problems and is extremely stubborn. She likes laying on her right side on hard surfaces. Put her on a dog bed & she'll "dig it up" out from under her. Place her on her left side and she flips herself over. Tina developed a small pressure ulcer the diameter of a pencil on her right hip. Tina is otherwise healthy, has a great appetite and a wonderful joy of life. Despite excellent veterinary care from the beginning, this pressure sore wasn't healing well due to Tina's decisions about where and how she'd position herself.

Skin, be it animal or human, is our first line of defense. It acts as a barrier against infection, holds in organs and helps regulate body temperature. As skin ages, it thins out a bit and loses its elasticity. Older skin breaks down more easily. A pressure sore develops when the tissue overlying a bone is compressed. The tissue loses its blood supply and dies. This can happen in a matter of hours. The pressure ulcer develops from the inside out. By the time it is evident on the skin, the damage is already done. The damaged skin must be removed (either surgically, or the body can dissolve it away naturally) so that healing can begin.

Wound healing is a three phase process: injury, granulation and scarring (maturation). Tissue injury causes the body to activate its inflammatory response with specialized blood cells coming to the site to stop bleeding, clean up dead tissue in the wound and begin repairing the damaged blood supply. This response is immediate and lasts approximately 72 hours.

Then the wound begins the work of granulation. Granulation is a process by which cells at the base of a wound regenerate themselves. More specialized cells come to rebuild the tissue lost until it reaches skin level. Then the skin takes over to make a scar over the area. The scar is mostly collagen, fragile at first, but toughening over time. This is maturation. The area may or may not grow hair again, depending on the extent of external damage. Large wounds may require protein and vitamin supplementation to heal.

With all this in mind, what to suggest for Tina's pressure sore? Current medical evidence advises a clean moist environment for optimal healing. Sort of like providing an artificial skin so the body can heal. The moisture in a wound keeps all the cells moving. They would normally be bathed in fluid and doing their assigned tasks. Covering the wound keeps bacteria out and cushions and protects the area.

I suggested a hydrocolloidal dressing for Tina's wound. We used DuoDerm (Cavatec/Squibb) but several companies make similar products: Tegaderm (3M); Restore (Hollister); NuDerm (Johnson & Johnson), etc. A hydrocolloidal dressing looks like a waxy patch, has a soft foam outer layer, comes in various sizes and can be cut to fit an area. The dressing sticks to the healthy skin surrounding the wound, but does not stick to the wound itself. I suggested shaving the hair 1 - 1 ½ inches around the pressure sore. The hydrocolloidal dressing adheres due to body heat. To promote adhesion on a canine who may try to remove it before it sticks, a hair dryer on the lowest possible heat is used while smoothing it in place. The dressing stays on for 3-7 days. It produces a healing gel or "goo" which can resemble pus, but is not. The "goo" is the product of the moisture from the wound ("hydro") combining with the waxy pectin-based matrix ("colloid") of the dressing. This medium provides the desired moist environment for the wound to cleanse itself and heal by granulation protected from the environment.

This class of dressings is appropriate for abrasions as well. I have used it on Great Dane “happy tail” injuries to avoid amputations when the tail skin is difficult to re-grow. The tail area is wrapped snugly in the hydrocolloidal dressing using either strips or half-sheets. It is secured with 3M Coban Vet Wrap and/or 3M Elasticon or Biersdorf Elastoplast elastic stretch tape. Then for a little extra wear time, I’ve used a modified cast wrap (Biersdorf Unna’s Boot). This may be left in place up to one week. Obviously, wear-time depends on the Houdini skills of the canine involved. The hydrocolloid, Duo-Derm is not appropriate for punctured or infected wounds. It can however, help dissolve or debride dead tissue in a wound. Oral antibiotics are suggested in that case or in the case of “happy tails.”

Certified wound nurses are available throughout the country and are certified by the Wound, Ostomy and Continence Nurses (WOCN) Society professional nurses’ specialty organization. Many hospitals employ WOCNs; most medical supply houses do not. To find a WOCN, you can contact the WOCN Society at (888) 224-WOCN or on the internet at <http://www.wocn.org> under the Services and Resources section. Some WOCNs will not be comfortable consulting on animal cases, but may be quite willing to work with your veterinarian.

Tina was a good patient and healed in just a few weeks. I suggested that Tina’s healed but fragile area remain covered with the patch indefinitely due to the chronic nature of her problem. Tina likes to lay on that side, and at her advanced age, I doubt we can convince her to do something different. Our goal was to restore the integrity of her skin and keep her as healthy and happy as we can.

A follow-up note from Rose Mary Pries, Tina’s best friend:

Wish we had known about DuoDerm for previous happy tail injuries. I consulted with Zoe before submitting this article for the IWAMS newsletter to find out if she had newer or different products to recommend for dogs. She didn’t. She’d be happy to consult with IW owners or your vets if you have a wound healing problem.

As Zoe recommended, Tina wore her patch for continued protection. She healed so well that her coat even grew back. Each remaining day with Tina was an incredible gift. With Zoe’s clinical expertise and concern for Tina’s spirit, Tina maintained her skin integrity, quality of life and cheerful attitude. When Tina’s hindquarters finally gave out, we set her free to eat treats with the angels at 12 years and 4 months. A wonderful life, well-lived. I miss her to this day.