

Tulsa Community College Equine Severe Neck Wound Healing with hyCURE®

The following report is an interesting equine case in which hyCure®'s collagen gel and powder played a vital role in the successful outcome of a foal's severe neck wound.

"Nugget", a bay-roan Quarter Horse colt, was presented to Tulsa Community College's Veterinary Technology Program for continued care of a wound. At 3 days of age, this colt rolled under a fence and sustained bites from geldings in an adjoining pasture. The foal was offspring of a research mare and was admitted into Oklahoma State University Boren Veterinary Medical Teaching Hospital. An extensively deep wound to the right side of the neck, a minor wound to the dorsal-left neck and numerous abrasions extending the entire body were noted. The foal was placed in intensive care with administration of IV fluids, antibiotics, analgesics and anti-ulcer medications. During the stay at OSU, the foal's wounds were treated with chlorhexidine lavages, silver-sulfadiazine ointment and bandaging using washable ace bandages and pillow leg pads. Episodes of constipation and transient fevers occurred during the hospitalization period. Upon discharge, the foal was receiving daily bandage changes and had been placed on trimethoprim-sulfa P.O. for 2 days.

At 18 days of age, the foal was admitted to Tulsa Community College's Veterinary Technology Program. On arrival, the foal weighted 100#. Initial examination of the right, caudal cervical neck wound measured 9" in length, 4 ½" across dorsally, and 2" across ventrally (Figure 1). The wound extended the entire length of the right shoulder from withers to chest. Granulation tissue was evident, yet a ½" pocketing still existed dorsally and the skin edges were inverted. Daily wound treatments with chlorhexidine lavages, silver-sulfadiazine ointment, bandaging utilizing a stockinet chest-neck wrap, and trimethoprim-sulfa antibiotics were continued (Figure 2). Three days after admittance, antibiotics were discontinued and the foal was placed on kaolin-pectin and Probios® medications when soft stools were noted. HyCure® collagen powder treatment was begun 27 days post-injury. At each bandage change, hyCure® collagen powder was applied topically to the wound edges while SSD ointment was placed on the wound's center.

Fourteen days after arrival to TCC the foal weighted 164#. At this time, the wound measured 9" in length, 3" across dorsally, and 1 ½" across ventrally. A pinch, skin grafting surgery was performed standing under local anesthesia (Figure 3). Bandage changes occurred every other day progressing to changes every 2 days. Due to the sensitivity of the neck and subsequent panniculus to the hyCure® collagen powder being applied, the hyCure® collagen gel formulation was used at each bandage change. The gel formulation adhered well to the wound; thus, the foal's panniculus response was minimized which helped maintain the medication upon the wound. With the continued growth of the foal, a custom-made polyester chest-hood bandage was created allowing easy access dorsally to the neck wound (Figure 4). Under this

polyester bandage a gamgee pad was placed directly over the wound. This custom bandage provided wound protection and remained in place as the mare and foal had partial turn out in a paddock. Monitoring of the wound continued and measurements were frequently recorded (Figure 5a, 5b, 5c, 5d and 5e). It was noted that epithelialization progressed and several of the skin grafts adhered.

At 61 days post-injury, the wound was left un-bandaged and both mare and foal were permanently turned out in a pasture anticipating a discharge date and return to the research ranch with similar conditions. The wound measured 6 ½" in length, ¾" across dorsally, and ¼" across ventrally (Figure 6a and 6b). HyCure® collagen gel was applied daily for the following 7 days. At the time of discharge, the wound measured 6" in length, ½" across dorsally, and 3/8" across ventrally with several notable narrower areas along its length (Figure 7). Re-evaluations were done at 78 days post-injury (Figure 8) and at 113 days post-injury (Figure 9a and 9b). At the research ranch, the foal was handled every 3rd day and a topical vitamin E ointment was applied, promoting the wound surface to soften. On final examination, the wound was well epithelialized and had a small, 3/8" width granulation area present as it was becoming a slender scar.

HyCure® collagen gel and powder were significant components to the rapid healing of this extensive wound. This foal benefited from multiple elements including: initial intensive care, skin grafting surgery, wound location, rapid growth of the foal and the foal's roan coloring. However, despite the practical constraints involved with this foal, it was the hyCure® collagen gel and powder, in addition to the daily wound care, that were the most critical factors in making this wound heal in a cosmetically acceptable manner.

Sincerely,

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