SURGICAL AMPUTATION OF A DIGIT AND VACUUM ASSISTED CLOSURE (V.A.C.) MANAGEMENT IN A CASE OF OSTEOMYELITIS AND WOUND CARE IN AN EASTERN BLACK RHINOCEROS (*Diceros bicornis michaeli*)

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Abstract

A 14-yr-old, female, eastern black rhinoceros (*Diceros bicornis michaeli*) presented with progressive osteomyelitis in her left hind lateral toe. Beta hemolytic *Streptococcus* was isolated. The animal was treated with multiple systemic antibiotics, and local wound cleansing. Repeated debridements and trimmings were performed for 5 mo prior to electing amputation. The toe was surgically amputated at the level of P1/P2. Analgesia was diffused into the wound via a catheter and elastomeric pump (Mila International, Erlanger, KY 41018 USA). The open amputation site was covered with adherent drapes and a negative pressure wound therapy device applied (V.A.C.® Kinetic Concepts Incorporated, Grand Rapids, MI 49544). The V.A.C. machine was attached to the animal for 72 hr. Three months later this animal developed a deep leg ulcer on the lateral aspect of the right hind limb, at the level of the stifle. Methicillin resistant Beta hemolytic *Streptococcus* was isolated. The wound was managed by initial daily lavage, followed by one mo of V.A.C., with 72 hr between dressing changes. Our clinical impression is that this therapy expedited the formation of healthy granulation tissue and that overall healing was accelerated. The animal tolerated the machine and bandage changes well.

V.A.C. therapy has been used successfully in humans, dogs, turtles, a tortoise, and a juvenile tiger.[1-5] The use of this therapy also appears to facilitate wound healing in slow-healing wounds in black rhinoceros.

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