

Integrative management of third-degree burns in a giant anteater cub (*Myrmecophaga tridactyla*)

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Objective

Wildfires in the Pantanal biome have caused severe damage to wildlife, including full-thickness burns in various species. This case report describes the integrative clinical management of a giant anteater cub rescued during a wildfire in the Pantanal region, Mato Grosso, Brazil, detailing the therapeutic protocols used and their effectiveness in recovery.

Methods

A giant anteater cub (3.635 kg), admitted three days post-rescue, presented with third-degree full-thickness burns on all four limbs, extensive necrosis, compromised nail beds, debris accumulation, hyperemia, edema, and severe damage to the footpads (image 1). Sedation was performed for debridement, followed by cleansing with a sponge and 0.2% polyhexanide-based antiseptic (PHMB), then application of gauze soaked in aqueous polyhexanide solution for 15 minutes. Mechanical debridement was done using sterile forceps and scissors. After reapplying the polyhexanide solution, a silver sulfadiazine + cerium nitrate ointment was used, and the wound was dressed with cotton gauze, bandage, and elastic wrap.

Image 1: Photos taken before cleaning the wound on the limbs of a giant anteater cub victim of burns.

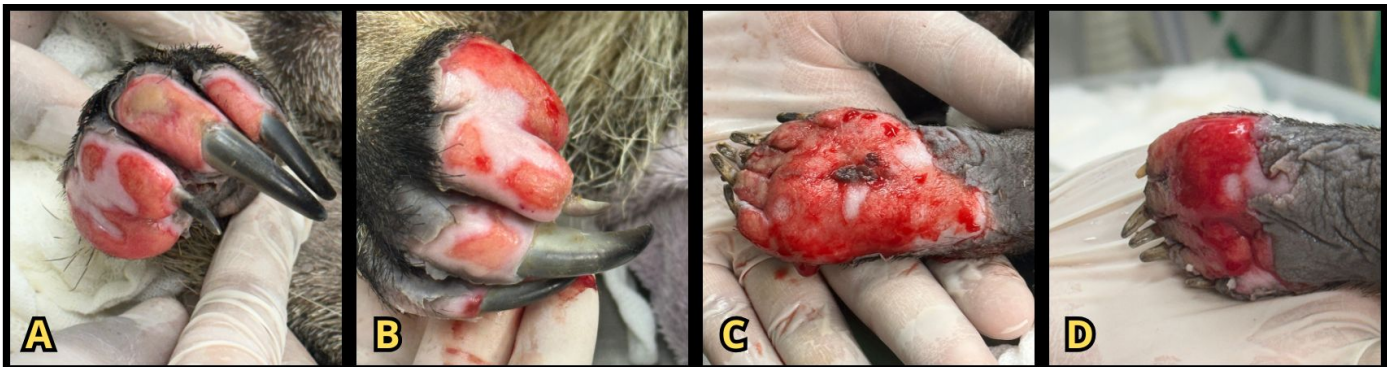


A) Right thoracic limb. **B)** Left thoracic limb. **C)** Right pelvic limb. **D)** Left pelvic limb.

Treatment included ceftriaxone (20 mg/kg, SC, q12h, for 5 days), methadone (0.2 mg/kg, IM, q6h), dipyrone (25 mg/kg, SC, q12h), and lactated Ringer's solution (25 ml/kg, IO). Signs of sepsis appeared the following day, and amikacin (20 mg/kg, IM, q24h, for 10 days) was initiated.

On days D2 and D3, dressings followed the same initial protocol. On days D4 and D5 (image 2), with persistent necrotic tissue in some areas, a hydrating gel with calcium and sodium alginate was applied to assist with its removal; other areas continued with silver sulfadiazine + cerium nitrate ointment. The dressing protocol remained unchanged.

Image 2: Photos taken after the first session of laser photobiomodulation therapy on a giant anteater cub victim of burns.



A) Right thoracic limb. **B)** Left thoracic limb. **C)** Right pelvic limb. **D)** Left pelvic limb.

From day D6 onward, no necrosis was present, and daily dressings included polyhexanide-based antiseptic, aqueous polyhexanide solution (15 minutes), silver sulfadiazine + cerium nitrate ointment, cotton gauze, bandage, and elastic wrap. From day D12, photobiomodulation therapy using laser (Hygialux LLT 1601 device – red and blue LED) was introduced as an adjunct treatment, with four sessions performed.

By day D42, complete wound healing had occurred, dressings were discontinued, and moisturizing ointment was applied every 12 hours. At this stage, the animal was already using its forelimbs for feeding. Currently, the pup is undergoing rehabilitation for future release into its natural habitat.

Image 3: Photos taken after the third session of laser photobiomodulation therapy on a giant anteater cub victim of burns.



A) Left thoracic limb. **B)** Left pelvic limb.

Results

The integrative protocol combining debridement, antimicrobials, healing agents, and laser therapy proved effective in controlling infection, accelerating healing, and restoring function in third-degree burns in a giant anteater pup.

Conclusion

The multidisciplinary approach enabled complete wound healing and functional recovery of the limbs, underscoring its importance in the rehabilitation and reintroduction of wild animals into their natural environments.