



From the Recovery Room

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Use of Foot Cast in the management of Heel Bulb Lacerations

SPECIAL POINTS OF INTEREST:

- Horses will find a way to injure their foot
- Heel bulb Lacerations, if not treated aggressively will scar
- Movement is your worst enemy
- Heel bulb injuries frequently involve the coffin joint
- Don't forget the tendon sheath
- Suturing the wound is always better than allowing it to granulate

Recently I was presented with a heel bulb laceration on a weanling that needed to be as “scar-free” as possible. The referring veterinarian was afraid that if he treated the weanling with traditional bandaging that he would not help the owner get this horse to sale without obvious scars.

Presentation:

Typically these wounds are due to horses inability to keep their feet out of tight places. This one in particular had slid it's hind foot through the metal and wood on the run-in shelter. There are usually two initial concerns that accompany these wounds.



The first concern is hemostasis....There is significant blood supply to the foot and 90% of which comes from the inside artery. If hemostasis is controlled, I immediately evaluate the wound for joint/tendon sheath communication. We always worry about



Repaired heel bulb laceration after joint lavage.

the pastern and must be evaluated as well. This particular case did have joint communication with the wound.

Treatment:

Due to the joint communication in this case, we took the weanling to surgery and aggressively debrided and flushed the joint. We also performed an intravenous regional limb perfusion as well as started the weanling on systemic antibiotics.

I don't always anesthetize heel bulb/pastern lacerations to repair, but I be-



Heel bulb laceration after removal from the cast.

the front side of the foot with the coffin joint, but the back side has a joint pouch that must be evaluated. The digital tendon sheath also extends down the back side of



Heel bulb laceration with joint communication sutured, but not casted. Wound dehiscid shortly after repair because it was managed in a bandage

- Casts can be applied standing or under anesthesia
- Cast management of heel bulb lacerations is cost-effective when compared to bandaging and lost revenue due to scar formation
- Casts are maintained for 4-5 weeks
- Wound remodeling takes 10-12 weeks after injury and the horse needs to be rested during this time.

Heel Bulb Lacerations Cont'd

lieve you get a better repair if you are not working on a standing/moving horse.

These wounds can be managed in a bandage and allow the wound to granulate and epithelialize, but they frequently will have excessive scar tissue. Primary closure with sutures is imperative to preventing scar formation.

The biggest enemy in heel bulb lacerations is movement. Standard bandaging does not provide enough stability to prevent movement of the wound edges and suture line dehiscence. My preference is that all

heel bulb lacerations go into a foot cast. A foot cast can be put on inexpensively and managed easily.

I prefer to maintain the foot cast for 4 weeks. If the horse is wearing it well, I might try to get an extra week, but no more than that. During this time the horse is maintained on strict stall rest with no hand walking.

Managing a foot cast is fairly straight forward. We check the cast daily for cast rubs and make sure the bottom of the cast is not wearing through. We keep a lower leg bandage on

the limb to make sure that no bedding or debris gets in the cast.

After the 4-5 weeks is over, we remove the cast standing. The foot and lower limb are placed into a bulky foot bandage and lower limb bandage to protect the repair. We keep the horse in this type of bandage for an additional 4 weeks to help protect the wound and allow it to strengthen. It takes a minimum of 12 weeks for the wound to mature. During this time I prefer for the horse to be on stall/small paddock rest.

If you have a heel bulb wound and you would like for us to try, please call



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