

Repairing a Serious Eye Injury

By Susan Buser
Photos by Zac. Buser

Most of us are very protective of our alpacas' big beautiful eyes. Some of us are almost obsessive about looking for any protruding wire or other potentially dangerous objects on fences or barns that could cause injury. We also carefully manage our males to prevent fighting as much as possible. But sometimes accidents do happen. The good news is that with the help of a good vet, even if the injury is serious, the eye can often be saved. If we're lucky, the vision may be saved as well.

In this particular incident, the caretaker was nearby when the injury happened, and immediately noticed a stream of red, watery liquid coming from the eye. Not a good sign! Examination of the animal was difficult, since he was nervous and the eye was filled with fluids. It did also appear to be damaged. The vet was called immediately.



Initial examination of the injury

If you find yourself in this situation, attempt to examine the eye to determine the extent of the injury. Administer pain relief if you have it (Banamine is fine). Call the vet! Give him/her as much

information as you can. If you see a laceration in the cornea or the eye bulging out, let him know that it is an emergency and you need help right away. The sooner you can get treatment for a serious eye injury the better. Isolate the animal and attempt to keep it as calm as possible until the vet arrives.

Do not administer eye ointment or drops with any eye injury-even if not serious-without consulting your vet. The eye may need to be stained and examined for lesions or lacerations before an ointment is administered. Some drops and ointments can exacerbate the problem, especially those with steroidal elements. Consult your vet first.

In the case of a serious eye injury, an antibiotic may be appropriate. Baytril is the best choice, since it penetrates eye tissues, while many others do not.

Upon examination of this animal, the vet determined that the cornea had been punctured, in the upper area of the eye at the joining of the sclera and pupil. Fortunately the vitreous fluid had not been released; it was bulging out, but was contained by a layer of epithelial tissue.



Note the large rip in the cornea



Dr. Bryant Phillips works to carefully repair the cornea, with the help of vet student Will McDavid.

The vet sedated the male and began further examination and surgery. He began the very delicate process of stitching the torn edges of the cornea back together, one stitch at a time. Slowly the rip in the cornea was repaired. It was amazing to see.

Next the vet pulled the conjunctiva down to the area of the repair and stitched it very lightly to the eye. The purpose of this was to bring a good blood supply to the area of injury to aid in healing. The vet also pulled the "third eyelid" up and stitched it over most of the eye (leaving an opening for application of medications). This would serve as somewhat of a natural bandage and protection for the eye as it began healing.



Stitching the conjunctiva to the cornea

We were unsure at this point of the overall damage to the eye and whether or not the alpaca would regain his vision, but we had the best possible chance for a positive outcome since the injury had been repaired quickly and skillfully. Hopefully, with aggressive treatment to prevent infection, we could at least save the eye, and at best, restore some vision.

The vet informed us that the eye was very swollen and would look bad for a while. We might see a bright red collection of blood cells in the lower portion of the eye until the body could re-absorb them. The eye might also turn blue due to the refraction of light through the swollen layers of corneal tissue.

Follow-up treatment

Blood was drawn to be spun down into serum, which could be administered dropwise into the eye. The proteins in the serum should help in the healing of the eye.



The alpaca was treated several times that evening with Tobramycin Ophthalmic Solution at 1-2 drops per administration. That was followed about 10 minutes later with Neo-Poly-Bac ointment (Neomycin, Polymixin B Sulfates, Bactracin Zinc Ophthalmic Ointment) administered along the bottom eyelid and worked into the eye.

Once the serum was available, that was added to the treatment regimen.

For the next seven days, during daylight hours, the three treatments were rotated (Tobramycin, serum, and ointment), administering one about every hour. Baytril was continued at 3cc once daily (SQ) for seven days.

Banamine was continued at 1.5cc daily (SQ) for four days.

For the first few days, the third eyelid remained in place and the alpaca kept his eye nearly closed much of the time. Some swelling and release of fluids was evident.



Fig 6: After surgery: note the third eyelid (pink in the corner of the eye) and plastic tube on the eyelid used to stabilize the stitching of the cornea to the conjunctiva

After seven days, no more serum was administered, but the drops and ointment were continued roughly every hour during the day for two more weeks. Ointment was then administered a couple of times per day. The alpaca was kept isolated and quiet (but within view of other alpacas) until the eye was fully healed.

Follow-up visits showed good progress

in healing, although restoration of sight was still questionable. At least the eye had definitely been saved and the animal had been spared any secondary infections or other threats to life from the injury.

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About the Author

Susan is an alpaca farm owner who is strongly committed to the education and success of new breeders in the industry. She was the founding President of the AOBA affiliate, the Alpaca Small Farm Network, where she dedicated three years toward the establishment of educational programs and networks of support for the farmers in the region. She and her husband Zac, are personally committed to helping farms in their area in any way they can - from education to hands-on help in an emergency. Susan and Zac enjoy raising their own huacaya herd plus a number of boarders on their farm, Abbondanza Alpacas, in Greenville, SC. Susan may be contacted at susanbuser@earthblink.net

