

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS

Sex: Female

Acc. #: 00216

Indian elephant

Age: 47Y 4M Est.

Birth: 8.Jun.1958

Name: GITA

=====

13.Sep.2005

Problem: abscess - digit (Confirmed)

Scrubbed foot with Nolvasan and flushed the tract. Injected 20mls of 50:50 dilute carbocaine with a 20g spinal needle, deep into the tissue in the tract. Trimmed the tract out until I could fit my index finger all the way in. Lots of granulation tissue and some purulent discharge. Removed granulation tissue from the tract. Identified bone fragments by palpation. Fragments were anteriolateral to the open tract. Removed bone fragments using Clowpers rongeurs. These fragments were portions of the eroded phalanges, P2 or P3. They were not part of an intact bone. Packed tract with sterile gauze to control bleeding. CONTINUED DAILY RLP AND TREATMENTS LF: AMIKACIN

Proc:

1. Restraint in chute.
2. Tourniquette applied.
3. 19g butterfly in vein on caudal aspect of LF. Lot's of challenges with venous access today. It seemed like the prior procedure may have venospasm or venous constriction.
4. Dilute carbocaine 6ml IV SLOW.
5. Amikacin 3gm diluted in 250ml LRS IV.
6. LRS 250ml IV.
8. Kept tourniquette on and foot elevated for 35 min.
9. Metronidazole suppository placed by keepers. (JW)

14.Sep.2005

Problem: abscess - digit (Confirmed)

AMPICILLIN RLP (JW)

15.Sep.2005

Problem: abscess - digit (Confirmed)

FLUCONAZOLE RLP (JW)

16.Sep.2005

Problem: abscess - digit (Confirmed)

AMIKACIN RLP (JW)

17.Sep.2005

Problem: abscess - digit (Confirmed)

Ab RLP (Ampicillin) went smoothly. SK (SK)

20.Sep.2005

Problem: abscess - digit (Confirmed)

Surgery to remove infected bone planned for 9/23/2005 with Dr. Larry Galuppo.

Ampicillin RLP, left front leg. (JW)

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS

Indian elephant

Name: GITA

=====

Sex: Female

Acc. #: 00216

Age: 47Y 4M Est.

Birth: 8.Jun.1958

=====

22.Sep.2005

Problem: abscess - digit (Confirmed)

AMIKACIN RLP, dose increased to 6 grams in 250mgls saline.
 Bone biopsies collected for culture (probably from fragmented P2) grew Pseudomonas & Morganelle, both suc to amikacin, no gram positives, anaerobes or fungal elements. I must assume that we are not reaching therapeutic bone concentrations of Amikacin with our current RLP treatment. We will double the RLP amikacin dose. This takes us from 5% of the systemic dose to 10% (6 grams). Still far below the level at which we might see renal toxicity. (JW)

23.Sep.2005

Problem: abscess - digit (Confirmed)

Surgical Removal of P1 on the Left Front D5: Dr Larry Galuppo from Davis was the primary surgeon.

After she was in lateral recumbancy under anesthesia the left front foot was elevated and placed on a circus ring so that the leg was parallel with the ground. The foot was prepped with betadine scrub and a blunted probe was placed up the ventral tract along with a spinal needle on the lateral aspect at approximately the level of P1 as markers. Radiographs were taken to triangulate P1 with the markers. New Methylene Blue was infused by long catheter up the ventral tract to delineate devitalized tissues.

The area was prepped again and standard towel and drape setup. Standard RLP was done and the tourniquet provided hemostasis. A 6 x 4 cm window was cut into the lateral aspect over the P2 area. This was gradually deepened and enlarged until it communicated with the dorsal aspect of the ventral tract. All of the devitalized tissues from the lateral approach and the ventral tract were removed. Deep devitalized and healthy tissue and bone samples were taken for C&S and AB levels throughout the procedure and from the P2 and P1 areas. The distal end of P1 was exposed and using an oscillating saw removed back to healthy bone. Further debridment and dissection of P1 allowed for another bone resection to the point of the dorsal metaphyseal flare.

Estimated that 1 - 2 cm of proximal normal appearing P1 remains in order not to disturb the metacarpal P1 junction. Final drainage window was 9 x 6 x 8 cm. A multi-fenestrated inflush system was tunneled dorsal to the wound and place into the wound. 0/0 PDS SI x 2 were lightly tied to keep the flush system in place. The flush system was tested with saline. The tourniquet was release and no significant bleeding was noted. The lateral and ventral wounds were packed off with a linen gauze followed by lap pads and a surgical towel. The foot was wrapped with elastikon and covered with duct tape. Finally the fitted boot was applied. Postop after standing there was some minor bleeding which stopped after a short period. Boot change and cleaning

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS

Sex: Female

Acc. #: 00216

Indian elephant

Age: 47Y 4M Est.

Birth: 8.Jun.1958

Name: GITA

=====

24.Sep.2005

1 DAY POST-OP: RLP, BANDAGE CHECK - DOING WELL

Kprs report that Gita started eating around 5 or 6 AM. She was given her ketoprofen at that time.

Obs:

Tired. Boot still in place. No more bleeding noted. She seems to be walking slightly slower and more tenderly on that foot, but still putting full wt on it when she's walking. Eating, but being picky.

Proc:

1. Analgesia/mild sedation: butorphanol 35mg IM 20min before being moved into chute for RLP and bandage check.

2. Removed boot - ACTUALLY VERY LITTLE BLOOD IN BOOT. Blood noticed yesterday post-op around top of boot was basically all there was. Boot was in fact, pretty clean. Bandage also still well attached and in place. Kprs took boot, cleaned it up with H2O2 and dried it in dryer for brief time while foot up for RLP.

3. Turniquette applied.

4. RLP with 8gm amikacin IV in 250ml. Followed with 250ml NaCl flush IV.

5. Bandage overall looks really good - still in place well, only slight warmth to surgery area noted through bandage. Cleaned up bandage.

6. Removed enough bandage to expose flush port.

7. Instilled approx 40ml of 0.5% Chlorhexidine solution into surgery site through port.

8. Applied more elastikon to upper portion of bandage to recover flush port, applied sheet of duct tape (approx 20x20in) to bottom of foot and reapplied more duct tape around bottom of bandage to hold that sheet on and provide more support.

9. Put boot back on.

Assess:

Overall doing and looking great. There was actually very minimal bleeding post-op verified once we had the boot off. The bandage stayed nicely in place and the flush port worked well. Gita's appetite is improving and she is hardly showing any lameness from procedure. However, warrants continuing oral nsoids and daily injections of butorphanol before procedure for now. Did procedure today in chute in case she was cranky or uncooperative, but she was really good, so think we can try doing same procedure tomorrow in stall rather than chute.

Plan:

1. Repeat today's procedure except: tomorrow is fluconazole day (2 bags now instead of 1, and no flush) and flush port with chlorhex 40ml BID instead of SID. (RB)

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS
Indian elephant
 Name: GITA

Sex: Female Acc. #: 00216
 Age: 47Y 4M Est. Birth: 8.Jun.1958

=====

27.Sep.2005

syringe/needle attached to drip bag/ tubing/ 3 way stopcock.

9. Ventral opening repacked with sterile half lap sponge soaked in sterile LRS. Lateral opening packed in a S-ing manner with 2.5 yds sterile linen guaze soaked in sterile LRS. Dry lap sponge placed over each of the wound openings, then a sterile hand towel covered both the lateral and ventral aspects of the surgical site.

10. Foot wrapped with elastikon, bottom covered with sheet of duct tape and then foot wrapped with duct tape.

11. Boot put back on.

12. Metronidazole suppository given.

Assess:

Wound is looking really good at this time. Bandage changes going well. Gita tolerating everything well. Most of bloodwork results consistent with tissue damage following such a large surgery. Globulins likely elevated due to chronic inflammatory response. Cr hopefully lab error or due to withholding water for surgery and just not completely rehydrated yet. Prelim culture results looking good so far. No pseudomonas isolated. Only a micrococcus isolated from distal P1 Cx and that is sensitive to ALL antibiotics testing (including ampicillin and amikacin which she gets in RLP).

Plan:

Repeat bandage change tomorrow. Due for ampicillin RLP tomorrow. No more PM treatments at this time, and will switch to just LRS for flushing/debridement tomorrow. Consider repeating bloodwork in a week or so. (RB)

28.Sep.2005

RLP, BANDAGE CHANGE

Kprs report Gita is doing great.

Obs: BAR. No real lameness apparent today. Seems to be getting slightly less cooperative/patient with each day.

Proc:

1. Butorphanol 35 mg IM 15 mins prior to procedure.
2. Carbocaine flushed through the wound drain prior to bandage change.
3. RLP - Tourniquet applied. Ampicillin 15gms diluted in 250ml IV. Followed by 250 mls LRS. No edema noted in leg today.
4. Bandage removed: Skin looking fair - starting to get soft and flakey around surgery site.
5. Scrubbed around surgical area thoroughly with betadine scrub and rinsed with saline before removed wound packing material. Tried to keep area as sterile as possible.
6. Removed packing material - Surgery site looked very clean, almost no bleeding, minimal if any fibrinous debris evident.
7. Pictures taken

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS

Sex: Female

Acc. #: 00216

Indian elephant

Age: 47Y 4M Est.

Birth: 8.Jun.1958

Name: GITA

=====

28.Sep.2005

8. Pressure flushed/debrided wound with LRS via sterile syringe/needle attached to drip bag/ tubing/ 3 way stopcock.

9. Ventral opening repacked with sterile half lap sponge soaked in sterile LRS. Lateral opening packed in a S-ing manner with 2 yds sterile cheese cloth and 1 lap sponge soaked in sterile LRS. Dry lap sponge placed over each of the wound openings, then a sterile hand towel covered both the lateral and ventral aspects of the surgical site.

10. Foot wrapped with elastikon, bottom covered with sheet of duct tape and then foot wrapped with duct tape.

11. Boot put back on.

12. Metronidazole suppository given.

Assess:

Wound is looking really good at this time. Bandage changes going well. Gita tolerating things well enough, but getting slightly less cooperative (maybe due to not being in chute and having room to move away).

Plan:

Repeat bandage change tomorrow. (RB)

29.Sep.2005

RADS, RLP, CULTURES TAKEN, BANDAGE CHANGE

Obs: BAR. Continues to be slightly less cooperative than usual.

Proc:

1. Butorphanol 35 mg IM 15 mins prior to procedure.

2. Boot removed.

3. Radiographs (Oblique VD of D5 and D3): Minimal change, if any, in appearance of remaining portion of D5 P1 compared to 9/25. Technique slightly dark on D3, but no obvious lesions noted.

4. Carbocaine flushed through the wound drain prior to bandage change.

5. RLP - Tourniquet applied. Amikacin 8gms diluted in 250ml IV.

Followed by 250 mls LRS.

6. Bandage removed: Skin looking fair/good - still some flaking and softness around surgery site.

7. Scrubbed around surgical area thoroughly with betadine scrub and rinsed with saline before removed wound packing material. Tried to keep area as sterile as possible. Sprayed area/foot with betadine spray.

8. Removed packing material - Some mild purulent and slightly smelly d/c on tissues around edge of surgery site and hole in bottom of foot. Also some minor fibrinonecrotic tissue forming on surface of a few areas of tissue. Majority of tissue, esp deep in the site, appears good at this time.

9. Pictures taken.

- page 23 -

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS

Sex: Female

Acc. #: 00216

Indian elephant

Age: 47Y 4M Est.

Birth: 8.Jun.1958

Name: GITA

=====

29.Sep.2005

10. Wound swabbed for aerobic, anaerobic and fungal Cx.
11. Pressure flushed/debrided wound with LRS via sterile syringe/needle attached to drip bag/ tubing/ 3 way stopcock.
12. Ventral opening repacked with sterile half lap sponge soaked in sterile LRS. Lateral opening packed in a S-ing manner with 2 yds sterile cheese cloth and 1 lap sponge soaked in sterile LRS. Dry lap sponge placed over each of the wound openings, then a sterile hand towel covered both the lateral and ventral aspects of the surgical site.
13. Foot wrapped with elastikon, bottom covered with sheet of duct tape and then foot wrapped with duct tape.
14. Boot put back on.
15. Metronidazole suppository given.

Assess:

Wound looking OK, but not as good as yesterday. Hard to tell if just normal process of healing vs infection. Cultures pending. Based on rads, no change in portion of D5 P1 remaining at this time.

Plan:

Repeat bandage change tomorrow. (RB)

30.Sep.2005

SUSPECT MILD COLIC; BANDAGE CHANGE, WOUND DEBRIDEMENT

6:30AM - SUSPECTED COLIC

Kprs called to report that Gita seemed in distress and appeared like she was going to go down. She was having small episodes overnight where she would seem uncomfortable, looking at her sides and lifting her legs. These episodes got worse and closer together until 6:30AM when they called me. By the time I arrived (6:45), had already been given her ketoprofen, and appeared to be calming down. I noticed no further colic-like symptoms while I was there. Told kprs to d/c butorphanol and ketoprofen for now, we took blood for istat/cbc/chem, and gave her Banamine 1750mg IM (0.5mg/kg). istat was WNL. Between the ketoprofen she had already gotten and the banamine we gave her, colic signs resolved during the day, but returned around 5PM, so had kprs give another dose of banamine 1750mg IM.

R/LP, BANDAGE CHANGE & WOUND DEBRIDEMENT

Dr. Steve Bilbrey from ASG in to help with wound care today. Prelim C&S from 9/26 = light growth of enterococcus with good resistance. Sensitive to amoxicillin, ampicillin, clavamox, chloramphenicol, gentamicin, penicillin, tetracycline and vancomycin.

Proc:

1. Carbocaine flushed through the wound drain prior to bandage change.
2. R/LP - Tourniquet applied. Amikacin 8 gms diluted in 250ml IV. Followed by 250 mls LRS.

- page 24 -

Clinical Notes - Individual Specimen Report
LOS ANGELES ZOO

=====

ELEPHAS MAXIMUS INDICUS

Sex: Female

Acc. #: 00216

Indian elephant

Age: 47Y 4M Est.

Birth: 8.Jun.1958

Name: GITA

=====

30.Sep.2005

3. Bandage removed.
4. Scrubbed around surgical area thoroughly with betadine scrub and rinsed with saline before removed wound packing material. Tried to keep area as sterile as possible.
5. Removed packing material - Moderate amount of thick, tenacious, whitish-yellow exudate covering all surfaces of wound. Some foul-odor noted when removing the packing material and tubing. Noted that infusion port tubing had somehow either been cut or broke in half that that tubing was looking pretty gross, so removed port and tubing.
6. Pictures taken.
7. Tubing from interior of wound divided into culterettes to be sent out for aerobic C&S to Antech and Unilab.
8. Wound debridement by Dr. Bilbrey: Used both gauze and scapel debridement to remove exudate and necrotic tissue until back to more healthy appearing tissues that bled easily. One fairly large piece of fibrinonecrotic tissue was collected for testing (see #9). There is a fair-sized pocket behind the wound edge at the dorsal extent of the wound.
9. Necrotic tissue submitted for aerobic C&S to Antech and Unilab, and submitted to NWZP for histopathology.
10. Flushed wound with 1L LRS via sterile syringe/needle attached to drip bag/ tubing/ 3 way stopcock.
11. Pictures taken of wound post-debridement.
12. 2gm of powdered ampicillin deposited into wound.
13. Ventral opening repacked with sterile half lap sponge soaked in sterile LRS. Lateral opening packed 2 lap sponges moistened in sterile LRS. Dry lap sponge placed over each of the wound openings, then a sterile hand towel covered both the lateral and ventral aspects of the surgical site.
14. Foot wrapped with elastikon, bottom covered with sheet of duct tape and then foot wrapped with duct tape.
15. Boot put back on.
16. Metronidazole suppository given.

Assess:

Suspected Colic - Based on symptoms, decreased acitivity and use of opioids, colic seems like the most likely reason for symptoms noted. Responded to ketoprofen and/or banamine. Warrants d/c'ing ketoprofen and butorphanol for now and continuing banamine if symptoms continue. Bloodwork pending.

Wound - Exudate much heavier and covering all surfaces of wound today. Dr. Bilbrey able to debride well, so appears to be just superficial at this time. Cultures pending. Based on enterococcus growth on Cx, decided to put ampicillin powder into the wound today.

Plan: