

Clinical Notes - Individual Specimen Report
BURNET PARK ZOO

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=====
Scientific Name: ELEPHAS MAXIMUS (no subsp)           Accession #: M90080
Common Name: Asiatic elephant                         Female
Name: TARGA                                           Birth: 23.Nov.1983
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26.Dec.2000
 swelling overlying the umbilicus that measures (by). The abdominal wall is intact within the swelling and the contents are not reducible. Vagina is pink and no obvious discharge is noted. Staff reports that they have observed this syndrome in several other elephants. In our collection, Romani and Targa have developed this swelling, which was previously reported on the records as ventral edema, during previous pregnancies. In Siri, a similar condition developed while she was not gravid. In all elephants, the condition resolved on its own without treatment. Apparently, according to the staff, this has also been reported in elephants in other institutions. Plan-Monitor the size of the swelling. Serum will be submitted today (collected on 12/24/00) for a chemistry panel to monitor protein levels. Plan to repeat CBC in 1-3 days to monitor WBC. No other treatment recommended at this time; however, vets will consult with other elephant specialists for further details on this syndrome. (SF)

28.Dec.2000
 Keeper reports they have been monitoring ventral edema and amount of swelling has decreased in size. The elephant appears bright and alert with mild ventral edema.
 Plan: Monitor, consider recheck of CBC in 10-14 days. (KSK)

30.Dec.2000
 Keeper report 12/29: Right rear leg stiff. Hydrotherapy once for 15 min. Cause unknown. No change in size of edema. (KW)

31.Dec.2000
 Targa is still stiff and unwilling to lay down today. Blood drawn for CBC (while standing), revealed a slightly greater leukocytosis than last week (37,000/uL). Appetite and attitude remain normal. Edema on ventral abdomen unchanged. (RSC)

.....2001....

2.Jan.2001
 Hx: shifting leg lameness and joint swelling. Still not laying down. She is still very stiff. Left rear and left front are now the most affected. Yesterday she was not bending her left rear but she is starting to bend the left hind leg. Good appetite and attitude. Normal stools.
 Observation: stiff gait in both rear limbs. The left ankle has some swelling cranially. She is still reluctant to lift her hind legs but will do it. No heat palpated, no problems seen on the soles or nails. (NAM)

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- 4.Jan.2001
Hx: Migrating leg lameness, still not laying down. Joint swelling has decreased significantly.
Observations: Left rear and left front limbs are the most affected, but swelling has reduced significantly. No joint effusion noted in either limb. She is moving more easily and flexing joints with less discomfort, she still refuses to lay down.
Procedure: Blood collected for CBC, chem panel, shalm fibrinogen, total protein electrophoresis, rheumatoid factor, Lyme disease, MCF ELISA, anaplasmosis, leptospirosis. Blood was saved for future elephant Herpes virus PCR. Feces were collected for ova and parasite, as well as enteric pathogen culture. (GK)

- 9.Jan.2001
Keepers report Targa's gait appears completely normal for past couple of days. (KSK)

- 11.Jan.2001
Visual recheck. Targa's edema has improved at least 75%. She is walking normally and keepers report no hesitation when they ask her to lie down or bend any of her leg joints. (KSK)

- 15.Jan.2001
Hx-Previous reports of lameness. Lameness has resolved completely. All serologic tests have returned NEG (Lyme disease, Anaplasmosis, Eq. arteritis virus, Eq. Herpes virus-1, and fecal culture) and Eq Herpesvirus-2. Serology for Eq. Rhinovirus-2 was mildly positive (1:6) which is not significant. Slight leukocytosis (21,000) with a mild neutrophilia and a monocytosis. Chem panel normal. (SF)

- 6.Feb.2001
Progesterone level was 0.18ng/ml. Date of report 1/31/01. (KW)

- 15.Feb.2001
Hx-Previous culture negative for Mycobacterium, neg for MTD (RNA polymerase test for Mycobacterium complex-not validated for elephants as of yet).
P/E-Trunk wash done today as part of 3 tests done in a one week period. Trunk wash was done by inserting a sterile red rubber tube into the trunk, 60 cc of saline and commanding the animal to blow into a clean bag. All materials used were sterile to decrease the chance of contamination with Mycobacterial RNA. The material collected was submitted to the NVSL for both culture and MTD. (SF)

- 19.Feb.2001
Hx-Second trunk wash in series of 3 for the week. (SF)

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20.Feb.2001

Hx-Third trunk wash in a series of 3 for the week.
Vaccinated with rabies (1 ml Imrab IM) on right triceps and tetanus toxoid (1 ml IM) on left triceps. Vaccination area was prepped by scrubbing it with chlorhexidine and alcohol. DMSO was applied to the area immediately after vaccination. (SF)

3.May.2001

Hx-Herd testing for tuberculosis via and MTD. Both were negative. (SF)

7.May.2001

Visual exam. Targa appears comfortable today and keepers report she does not appear abnormal to them today; eating, drinking, acting normally. Blood drawn for a CBC, which did not show any abnormal white blood cell count elevation. Blood also drawn for herpesvirus testing. No discharge evident from vaginal area. Plan: Monitor closely. Submit fecal sample for Listeria culture. (KSK)

17.May.2001

Placental swab taken on Targa's placenta yielded negative aerobic culture, and positive Leptospira FA. Other samples included the aerobic culture of the abdominal fluid found in Targa's calf (negative) and the calf's CSF fluid (negative). Fungal culture of the placenta still pending. Plan-Speak to bacteriologist about significance of positive Leptospira culture, and if serovar can be determined. Also plan to submit serum from Targa for leptospirosis titers and determine if this would correlate with findings. (SF)

21.May.2001

HX-Keepers noted today that when Targa was asked to do "power tricks" (head stands or front leg up exercises) she appeared shaky and uncomfortable. They discontinued these maneuvers, and Targa laid down for a couple of seconds and appeared uncomfortable. There has been a small amount of blood draining from the vagina on an intermittent basis for the last few weeks since the birth; however, nothing was noted today. She is eating and otherwise acting normal. Drew blood today for CBC/Chem.

Plan-Since Dr. Schlafer mentioned that a large amt of endometrium was present with the placenta he examined, it is possible Targa's uterine lining is still in the process of healing. Discontinue strenuous exercise for another couple of weeks. Keepers to collect bloody discharge for DVM to examine next time it is passed. (SF)

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22.May.2001

Hx-Animal reported to be eating well, drinking well. Fecal material and urine passed overnight was normal. No further discharge seen today. Animal does not seem uncomfortable. She was not put through her regular exercises today, nor laid down for a bath.

Verbal results from clin path on CBC/Chem results:

WBC=21,4000

Segs=4,9

lymph=9.8

mono=6.2

PCV=39%

TP=8.6

NA=130

K=5.1

CL=89

Bicar=22

A/G=24

Creat=1.3

Ca=12.3

P=5/6

Mg=2.2

TP=8.6

Al=3.4

Glob=5.2

Gluc=86

AST=49

SDH=3.8

ALKP=67

GGT=8

Totla Bil=0.2

Ck=152

Iron=111

BUN=17 (SF)

28.May.2001

Hx: Post-miscarriage. Targa has been strong, eating well, and defecating normally. We attended one of her training sessions which she performed with a normal level of energy. (NAM)

31.May.2001

Titers for L. pomona, L. hardjo, L. icter/cop, L. grippo, L. canicola are negative, elephant herpes virus negative on calf blood and tissue samples (NAM)

11.Jun.2001

Additional Leptospirosis serovars were all negative (see report).
(SF)

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15.Mar.2002

Blood collected 3/1/02: monocytosis at 8.4 thou (range 0.7-6.5); WBC count wnl at 16.7 thou. Calcium slightly high at 11.6 (range 9.8-11.4). All other values WNL. (NAM)

7.May.2002

Trunk Wash TB culture results:
Samples submitted 2/22/02, 2/26/02 and 3/1/02 all negative. (NAM)

5.Aug.2002

Progesterone baseline for sample collected on July 6th and submitted on July 9th was 0.11 ng/ml.

Blood submitted on July 27th: 0.21 ng/ml (SEC)

29.Aug.2002

Due to Mali's surgery today, Targa was given 260mg of xylazine this morning at around 8AM. She remained heavily sedated, but standing for most of the day. Bt 4:30 PM she still tranquil. It was elected not to give her yohimbine for reversal, but rather to allow her to remain quiet for the evening. (GK)

5.Sep.2002

Progesterone levels:
submitted on 8/17: <0.05 ng/ml
submitted on 8/24: 0.08 ng/ml (SC)

24.Sep.2002

Progesterone levels:
submitted on 8/31: <0.05 ng/ml
submitted on 9/14: <0.05 ng/ml (SC)

16.Oct.2002

Progesterone baseline (collected 10/5): < 0.05 ng/ml (SC)

17.Oct.2002

Progesterone baseline (collected 10/12): 0.25 ng/ml. (SC)

1.Nov.2002

Ongoing discussion relating to disparate Vitamin E levels in the elephant group prompted a phone conversation with GVK and Dr. Ellen Dierenfeld at (ED) the Wildlife Conservation Society's Comparative Nutiriton Laboratory. ED's recommedation for supplementation of d-alpha tocopherol (Emcelle-Purina) is approximately 1 IU(mg)/kg/day, which is much less than the 6 and 12mg/kg dose that has been offered

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1.Nov.2002

to the female elephants and to the bull respectively. The WCS range for plasma Vit E levels in normal elephants is 0.5-1.0 micrograms/ml. RGZ cows range from 0.75-1.3 micrograms/ml and the bull has ranged from 0.00-0.73 micrograms/ml, depending on the laboratory that has been conducting the analyses and the total daily dose of Vit E that has been offered. Based on the information provided by ED, RGZ elephants are receiving 3-13 times the dose that may be required. ED went on to state that the RGZ bull (weight approx. 10,500 lbs or 4772kg) should only need approximately 5000mg(IU) total dose of Vit. E/day. ED stated that there are disparities between laboratories relative to results obtained for plasma Vit E levels in animals. As an example, the Michigan State University Nutrition Laboratory's values are often 2x's greater than those values obtained by WCS Comparative Nutrition Laboratory. ED postulated that if we decrease the dosage of Vit E in the elephants, that the plasma levels may not be significantly altered (decreased) for up to a year, or may not be decreased at all as long as oral supplementation continues. Plan: 1) NAM will query Zoo Med Network to obtain information concerning the doses of Vit E that zoos are using for their elephants and the range of plasma levels that have been obtained over various time periods of continuous supplementation. Additionally, information will be attained relating to potential differences in these values between males and females 2) Consider decreasing the daily dose of Vit E in all elephants to 1-3 IU(mg)/kg/day. 3) Concurrent with the changes in the dosages, we need to develop a protocol for blood sampling for Vit E analysis. In order to sort out some of the disparities described above, each sample should simultaneously be sent to 1-3 different laboratories. KW and CD need to discuss costs for the analyses (as an example, the WCS lab can run the assay and charges \$10-15/sample). (this entry has been copied to the clinical notes of all other RGZ elephants and dated 10/31/02). (KW)

6.Nov.2002

Baseline progesterone levels (collected 10/26): 0.25ng/ml (SC)

11.Nov.2002

Baseline progesterone (collected 11/02): 0.22 ng/ml (SC)

18.Nov.2002

Baseline progesterone (collected 11/09): 0.10 ng/ml (NAM)

5.Dec.2002

Baseline progesterone (collected 11/23): <0.05ng/ml (SC)

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22.Dec.2003
Progesterone baseline (12/13/2003): 0.09ng/mL (RSC)

.....2004....

4.Jan.2004
Progesterone baseline (12/20/2003): 0.21ng/mL
Progesterone baseline (12/27/2003): 0.23ng/mL (RSC)

12.Jan.2004
Fecal collected on 1/6/04 was negative for ova and parasite. (NAM)

17.Jan.2004
Keeper report 1/16: Siri (169) pushed Targa into Indy's stall mesh by the panel box very aggressively in the morning. Targa has a scrape at the top of her tail, no other problems noted.

KWP checked this morning. Scrape is superficial and clean. Keepers will monitor and keep clean, DVM to check at next visit. (KWP)

21.Jan.2004
progesterone baseline (collected 1/3): 0.29 ng/ml
progesterone baseline (collected 1/10): 0.33 ng/ml (SC)

26.Jan.2004
progesterone baseline (collected 1/17): 0.36ng/ml (SC)

4.Feb.2004
Progesterone baseline (collected 1/24): 0.64 ng/ml (SC)

8.Feb.2004
Progesterone baseline (collected 1/31): 0.34 ng/ml (RSC)

12.Feb.2004
Height 8'3" (KWP)

15.Feb.2004
Progesterone baseline (collected 2/07): 0.30 ng/ml (RSC)

23.Feb.2004
Annual TB test: Water was withheld for 2 hours and she was lightly exercised prior to the procedure. 60cc of sterile saline was instilled into one nostril using a 60cc syringe and a 12Fr red rubber catheter. A rectal examination glove was then immediately placed over the end of the trunk and she blew the saline out of her nose. The resultant sample was transferred into a screw-top centrifuge tube. The sample was placed in the freezer.
P: collect sample again on Wednesday and Friday, and then submit all samples for Mycobacterium culture. (SC)

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25.Feb.2004

Annual TB test #2: Water was withheld for 2 hours and she was lightly exercised prior to the procedure. 60cc of sterile saline was instilled into one nostril using a 60cc syringe and a 12Fr red rubber catheter. A rectal examination glove was then immediately placed over the end of the trunk and she blew the saline out of her nose. The resultant sample was transferred into a screw-top centrifuge tube. The sample was placed in the freezer.
P: collect sample again on Friday, and then submit all samples for Mycobacterium culture.

Baseline progesterone (collected 2/14/04): 0.42ng/ml (SC)

27.Feb.2004

Blood was submitted for CBC and chem panel, West Nile serology, Vitamin E submitted to both Cornell and Michigan using 2 separation techniques: in the first, the blood was centrifuged immediately and frozen at -20C. In the second, the blood was stored for 2 hours in the fridge and then centrifuged (old technique). Serum was banked for TB ELISA. (NAM)

27.Feb.2004

Annual TB test #3 plus vaccinations: Water was withheld for 2 hours and she was lightly exercised prior to the procedure. 60cc of sterile saline was instilled into one nostril using a 60cc syringe and a 12Fr red rubber catheter. A rectal examination glove was then immediately placed over the end of the trunk and she blew the saline out of her nose. The resultant sample was transferred into a screw-top centrifuge tube. The sample was placed in the freezer. Injections administered: Imrab 2ml IM R triceps, tetanus toxoid 1ml IM L triceps. Injection sites were surgically prepped and treated with DMSO.
P: Submit all samples for Mycobacterium culture. Monitor for injection site reactions. (SC)

1.Mar.2004

Blood collected on 2/27/04 showed: normal CBC, slight increase in BUN (17 - ref range 12+/-4), calcium slightly increased 11.6 (ref range 10.6 +/- 0.6), decreased phosphate (4.0 - ref range 6.7 +/-1.4). All other values were WNL.
All 6 elephants had decreased phosphorus and decreased alk phosphate.

Progesterone baseline on blood collected 2/21/04 was 0.44ng/ml (NAM)

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25.Oct.2004
 Baseline progesterone (collected 10/09/04): 0.52 ng/ml
 Baseline progesterone (collected 10/16/04): 0.70 ng/ml (SEC)

9.Nov.2004
 Progesterone (collected 10-30-04) levels: 0.76 ng/ml (SEC)

15.Nov.2004
 Progesterone level (collected 11/6): 0.55 ng/ml (SEC)

19.Nov.2004
 Progesterone level (collected 11/13): 0.36ng/ml (SEC)

23.Nov.2004
 Supplement Update:
 7 ml Vitamin E (1U/kg)
 1 Scoop Elephant biotin (43 cc)
 Salt/mineral block small handful
 All supplement given daily. Vitamin E recalculated when weights
 taken. (KWP)

28.Nov.2004
 Progesterone level (collected 11/22): 0.62ng/ml (RSC)

13.Dec.2004
 Progesterone level (collected 12/4): 0.55 ng/ml
 Progesterone level (collected 11/27): 0.69 ng/ml (SEC)

20.Dec.2004
 Progesterone level (collected 12/11): 0.73 ng/ml (SEC)

29.Dec.2004
 Progesterone level (collected 12/18): 0.52 ng/ml (SEC)

.....2005....

3.Jan.2005
 Progesterone level (collected 12/26): 0.87 ng/ml (SEC)

10.Jan.2005
 Progesterone level (collected 1/2/05): 0.78 ng/ml (NAM)

17.Jan.2005
 Progesterone level (collected 1/08): 0.39 ng/ml (SEC)

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21.Mar.2005

CBC and chemistry panel (collected 3/17):
mild hypercalcemia 11.4 mg/dl (normal 10.6 +/- 0.6)
mild hypophosphatemia 4.3 mg/dl (normal 6.7 +/- 1.4)

A/P: these findings are likely nonspecific. Most of the other elephants had the same changes. The hypophosphatemia may be lab-related or may indicate a dietary deficiency. (SEC)

23.Mar.2005

Fecal (collected 3/17): no parasites detected. (SEC)

30.Mar.2005

Yesterday, Charlie Grey and Dr Rich attempted to ultrasound Targa transabdominally but were unsuccessful in visualizing the fetus (perhaps one foot was seen briefly).

Baseline progesterone from 3/17/05 was 0.36 ng/ml.

Serum vitamin E concentration in sample collected 3/17/05 was 138 ug/dl (normal range 23 -157 ug/dl). (NAM)

4.Apr.2005

Lab results:

WNV SN (collected 3/17): negative 1:40

Progesterone level (collected 3/26): 0.45ng/ml (SEC)

6.Apr.2005

Based on the elephant blood coagulation profile published in Zoo Biol (15:413-423) 1996, the fibrinogen (297 mg/dl) is WNL mean 4.61, SD 0.49 g/l. The PT is WNL at 9.8 (Normal range 9.6,+/-0.7), the INR was 0.97. D-Dimer < 0.5 (normal). The APTT was 11.6 this value seems to be highly depended on the reagents used (varying from an average of 22 up to 65). Although it seems low compared to the values published, it was similar to the value obtained for Kirina. (NAM)

11.Apr.2005

Progesterone collected 4/2/05: .49ng/ml (EMB)

18.Apr.2005

Progesterone levels collected 4/9/05: 0.47 ng/ml (NAM)

20.Apr.2005

EEHE ELISA submitted when Mali was sick showed low titers. All other elephants in herd had low titers except for Siri who had high titers. P: repeat 6 weeks after this last sample was collected. The lab will try to retrieve the serum that was sent around the time when Preya was sick to assess seroconversion. (NAM)

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16.May.2005

Blood collected 05/07/05. Progesterone baseline 0.53 ng/ml (EMB)

25.May.2005

Trunk washes performed on 3/14, 3/16 and 3/17/05 submitted to NVSL for mycobacterial culture were all negative. (NAM)

31.May.2005

Practice transrectal ultrasound performed: The vagina was observed, but once the cervix was coming into view, Targa became less tolerant and the procedure was stopped.

Progesterone level (collected 5/22): 0.58 ng/ml (SEC)

2.Jun.2005

Keeper report 6/1: Targa is showing no interest in PM grain for the last 3 days. She did eat some of the produce. Eating AM grain fine. (KWP)

6.Jun.2005

Progesterone level (blood collected 05/27/05): 0.41 ng/ml (NAM)

13.Jun.2005

Possible passage of cervical mucus plug. A large amount of thick, tenacious, whitish mucus was found in the bottom of the pool. Targa's attitude has changed in the past few days and she has been slightly lethargic. Progesterone 6/10 was 0.57ng/ml. Samples from Saturday, Sunday, and today will be run by DL and CU tomorrow morning. (SEC)

14.Jun.2005

Keeper report 6/13: Edema is not getting larger. Showing some indications of pre-labor: agitated while on exhibit, hitting E gate on a regular basis in pm. Pressing left rear foot on water trough late pm, possible mucus plug found on pool drain. Substance was not like phlegm from Siri.

Progesterones:

6/7 0.41

6/8 0.69

6/9 0.57 (KWP)

15.Jun.2005

Keeper report 6/14: Fetal movement detected during am bath. Also observed throughout day vulva slapping, foot pressing and vocalizations (some extended calls). Diet and water consumption normal. Rectal exam given (keepers). (KWP)

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15.Jun.2005

Progesterone levels:
Collected 6/10: 0.52ng/ml
Collected 6/11: 0.51ng/ml
Collected 6/12: 0.53ng/ml
Collected 6/13: 0.68ng/ml (SEC)

16.Jun.2005

Targa is acting normally. She still is hitting her vulva with her tail occasionally, but is not acting agitated or laying down a lot.
(SEC)

22.Jun.2005

Progesterone levels:
Collected 6/16: 0.78 ng/ml
Collected 6/15: 0.60 ng/ml
Collected 6/14: 0.50 ng/ml (SEC)

23.Jun.2005

Blood collected on May 18th 2005 was submitted as the paired sample for the samples collected after Mali's illness (in March 2005). Results were identical to those obtained in March with all elephants showing low levels except for Siri who showed again high titers. Interpretation is still tentative with many disclaimers from the lab. Siri's results may mean that she has been exposed to EEHV sometime in the past. Mali's low results may mean that she has never been exposed. Right now the lab is trying not to draw any conclusions based on the ELISA results as they need to test more animals. (NAM)

27.Jun.2005

Progesterone levels:
6/17: 0.76 ng/ml
6/18: 0.77 ng/ml
6/19: 0.56 ng/ml
6/20: 0.80 ng/ml (SEC)

11.Jul.2005

Progesterone levels:
Collected 6/21: 0.95ng/ml
Collected 6/22: 0.91ng/ml
Collected 6/23: 0.77ng/ml
Collected 6/24: 0.50ng/ml
Collected 6/25: 0.65ng/ml
Collected 6/26: 0.60ng/ml
Collected 6/27: 0.62ng/ml

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27.Jul.2005

Progesterone: blood collected 7/19/2005 was 0.45ng/ml.
 Progesterone: blood collected 7/20/2005 was 0.41ng/ml.
 Ultrasound today allowed visualisation of nearly empty vestibule
 (cranial sac), vagina and cervix (!). No dilation noted yet. (NAM)

28.Jul.2005

Yesterday's progesterone was 0.3ug/ml. Chuck talked to Dennis and relayed this info: if progesterone continues to decrease, and is below 0.16ug/ml, Targa may go into labor in 5-7 days. Targa will be tethered at night to get her used to it by the time of parturition.

Progesterone 7/21 0.56 ng/ml
 7/22 0.44 ng/ml
 7/23 0.49 ng/ml
 7/24 0.61 ng/ml
 7/25 0.54 ng/ml
 7/26 0.43 ng/ml (EMB)

31.Jul.2005

Vet's observations: the calf is BAR, strong, able to negotiate the leg ropes. By 13:45 he reportedly nursed twice for at least 30 secs. He passed a good amount of meconium (which was cultured). The placenta was passed as well in one piece (weight 60 lbs). It was examined and appeared free of lesion except for the following structure that was not identified and consisted of multiple 20cm in diameter and less, multilobulated (grape like), pale pink nodules (?) emerging from the "outside" of the placental sac (side of the mother). Samples of the tissues (placenta, chorionic membranes, cauliflower-like structure) were collected and divided as follow:

- 2 sets were collected and placed in formalin jars - one of these sets will be submitted for histopath examination
- 3 sets were collected and placed in freezer for saving and PCR submission
- The rest of the placenta was sent to CU c/o Dr Schlaffer.

Physical examination between 11:30 and 12:30 showed a height at shoulder of 38.25". Temp: 97.5F, HR 74 bpm, no heart murmur, RR 13 bpm.

Ophtho (normal eyes, some swelling of conjunctiva), ear (some sand noted), oral (pink mucous membranes, no swelling), anogenital (no abnormalities), Umbilicus (sand accumulated, cleaned with saline and topical treatment with Nolvasan solution 1:4 - no hernia, > 1 cm abdominal hole).

Blood was collected for CBC, chem panel and zinc turbidity (if quantity sufficient). We will get more blood tomorrow.

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P: Take vitals BID, dip umbilicus QID for the first day then TID for 3 days, blood collection again tomorrow. Will ask Chuck about ultrasounding Targa as post-partum check.

Note: By 14:40 Chuck reported that the calf is nursing on and off multiple times.

Tetanus antitoxin 1,500 IU was given IM at 3:50 right rear quads muscles. No adverse reaction were noted for 30 minutes post-injection. A small lump was present at the end of the injection. (NAM)

31.Jul.2005

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Progesterone: blood collected 7/23/05  0.49ng/ml
                               7/26/05  0.43
                               7/27   0.30ng/ml
                               7/28   0.19ng/ml
                               7/29 <0.05ng/ml

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11a.m. Targa gave birth this morning at 9:00 on exhibit. Labor was of short duration. The male calf has not yet seen to nurse and the placenta has not yet passed. He was walking within 15 minutes of birth and appears strong. The calf's weight is 345lbs. (RSC)

8.Aug.2005

Note: calf died on 8/5/05 following near drowning episode. Gross necropsy revealed torsion of 80% of small intestine, cecum and colon. Grossly lungs appeared normal. Histology pending.

On 8/5/05 a vulvar laceration was noted. Keepers and tech were flushing it with saline and applying silvadene cream.

Today, at end of urination, I was able to observe the vulva: as it was still fanned out, about 4 longitudinal abrasions were noted on either sides of the midline. They appear superficial but were coated with purulent material.

P: instructed keepers to collect sterile swab for culture (fungal and bacterial) and for gram staining. Blood was collected for CBC, chem and PEP. Change saline for sterile water. Continue silvadene (NAM)

15.Aug.2005

The keepers have been monitoring and cleaning the vulva with sterile water as directed. She was rechecked today and the wound appears to be healing well. There is still a short (1-2cm) abrasion on the left upper corner of the vulva that was not covered with necrotic material. The other abrasions noted on 8/8/05 had resolved. One small amount (2mm diameter) of pus was noted between the folds of the vulva. Keepers were instructed to continue sterile water flushes.

Clinical Notes - Individual Specimen Report
BURNET PARK ZOO

Scientific Name: ELEPHAS MAXIMUS (no subsp)
Common Name: Asiatic elephant
Name: TARGA

Accession #: M90080
Female
Birth: 23.Nov.1983

6.Sep.2005

Morphologic Diagnosis: Chorioallantois

- 1) Market multifocal allantoic fibrovascular plaques with multiple papilliferous fibrovascular allantoic verrucae.
- 2) Marked locally extensive marginal labyrinthine necrosis with marked vascular and chorionic villus basement membrane zone mineralization.
- 3) Mild multifocal intermediate artery fibrinoid necrosis and trophoblastic infiltration.

Comments:

Allantoic verrucae as reported as an occasional finding in Asian elephant placentas although of unknown etiology. There is no evidence of significant primary placental inflammation in any of the examined sections. The verrucae appear to be variably complex papilliferous fronds that arise from and are contiguous with more sessile allantoic fibrovascular plaques. Dr. Schlafer though the necrosis and mineralization in the marginal labyrinth was likely due to progressive expansion of the labyrinth. This lesion is not necessarily pathological as it resembles similar phenomenon evident in human placentas. Invasion of intermediate maternal arteries by trophoblasts and fibrinoid vascular degeneration is evident in full term canine placentas. There is no evidence of significant primary inflammation or viral necrosis in the examined sections. (NAM)

14.Sep.2005

Progesterone level from 9/3/05 was less than 0.05 ng/ml. (SLB)

20.Sep.2005

Progesterone 9/11/05: less than 0.05ng/ml
Culture of vaginal swab: Many enterococcus spp, Few Pantoea agglomerans. Enterococcus sensitive only to Amikacin. Pantoea sensitive to Amikacin, Clavamox, TMS and others. (EMB)

3.Oct.2005

Progesterone from 9/24/05 was less than 0.05 ng/ml (NAM)

10.Oct.2005

Progesterone from 10-01-05 was 0.07 ng/ml (SLB)

12.Oct.2005

PCR for EEHV on placenta was negative. (NAM)

31.Oct.2005

Progesterone from 10-22-05: 0.19ng/ml (RSC)

Clinical Notes - Individual Specimen Report
BURNET PARK ZOO

=====
Scientific Name: ELEPHAS MAXIMUS (no subsp) Accession #: M90080
Common Name: Asiatic elephant Female
Name: TARGA Birth: 23.Nov.1983
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- 3.Nov.2005
Talked to Dr Peter Rich about pre-shipment requirements for Targa and Mali:
- cbc and chem panel (recent)
- 5 negative Salmonella culture one week apart - We should start this next monday.
- titers for rabies and tetanus (to get baseline when they elect to continue vaccination)
- provide hard copy of medical records (SLB)
- 10.Nov.2005
Progesterone levels from 10/29/05: 0.11 ng/ml (SLB)
- 14.Nov.2005
Progesterone levels from 11/05/05: 0.07 ng/ml (RSC)
- 17.Nov.2005
S/O: Samples of rectal scraping submitted for the first in a series of 5 salmonella cultures. (EMB)
- 21.Nov.2005
Progesterone levels from 11/12/05: less than 0.05 ng/ml (EMB)
- 27.Nov.2005
Progesterone levels from 11/19/05: <0.05ng/ml (RSC)
- 1.Dec.2005
Rectal mucosa scraping was performed and submitted for Salmonella culture. (2nd in series of 5)
Rectal swab results from 11/17/05: aerobic culture - no significant organisms (no campy and no salmonella). (SLB)
- 5.Dec.2005
Baseline progesterone for 11/26/05: less than 0.05 ng/ml. (NAM)
- 8.Dec.2005
Rectal culture collected on 12/1/05 (number 2) was negative for enteric pathogens including campy and salmonella. (NAM)
- 12.Dec.2005
Progesterone from 12/3/05 less than 0.05ng/ml (RSC)

