

Medical History Report - Summary for Individual Specimen  
BUTTONWOOD PARK ZOO

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ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: 5
Asiatic elephant                     Age: 55Y 11M 2D      Birth: 29.Oct.1958
Name: RUTH
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.....2014....

- 9.Jul Clinical note recorded. (LAC)
- 15.Jul Clinical note recorded. (LAS)
- 28.Jul Clinical note recorded. (LAC)
  
- 3.Aug Clinical note recorded. (LAC)
- 4.Aug Purpose/Problem: antibiotic  
Rx: SSD CREAM 1b topically BID until further notice.  
Clinical note recorded. (LAC)
- 6.Aug Clinical note recorded. (LAC)
- 7.Aug Clinical note recorded. (LAC)
- 12.Aug Purpose/Problem: antibiotic  
Rx: ENROFLOXACIN 6.35gm PO q48h for 14 days. (2 mg/kg)  
Clinical note recorded. (LAC)
- 25.Aug Purpose/Problem: antibiotic  
Rx: ENROFLOXACIN 7000mg PO q72h for 14 days.  
Clinical note recorded. (LAC)
  
- 3.Sep Purpose/Problem: antibiotic  
Rx: SSD CREAM topically SID until further notice.  
Clinical note recorded. (LAC)
- 17.Sep Clinical note recorded. (LAC)
- 24.Sep Clinical note recorded. (LAC)

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Sex: Female

Acc. #: 5

**Asiatic elephant**

Age: 55Y 11M 2D

Birth: 29.Oct.1958

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Name: RUTH

**Clinical Note:**

**9.Jul.2014**

Vet consult:

Dr. MM and Dr. KW came in to look at Ruth's tail today and they agree that with the current separation of tissue the distal portion does have the potential to fall off. Discussed different options for surgical removal and anesthesia. Have another consult with MR on Friday (7/11) to further discuss options.

Keeper cleaned the tail area for us so we could get a better look and there did appear to be a slight amount of inflamed area just above the demarcation, will keep a close eye on it.

It does appear thought that surgery to remove the tissue is the best option. (LAC)

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**Asiatic elephant**  
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**Clinical Note:**

**15.Jul.2014**

Radiologist Report:

**HISTORY**

Consult Type: FILMINTERP, SIG: DOB: 7/15/1958, Age: 56 Y, Sex: F  
UNALTERED, Wt: 7500lbs, Breed: asian, Species: OTHER, Images: 10, Case  
Details: In January 2014 Ruth, a 54 year old asian elephant in good  
health suffered frostbite of her ears, vulva and tail. Over the next 6  
months her

ears and tail have healed. However, the distal portion of her tail has  
become necrotic and clinically there is a clear demarkation of viable  
and nonviable

tissue (seen on radiograph at the level of distal vertebra 3-4). A  
surgical intervention is planned. We are submitting multiple views  
taken from

February 2014 to July 2014.

Questions; Where is the most distal radiographic evidence of  
Osteonecrosis? Of osteomyelitis ?

The veterinary and elephant staff of the Buttonwood Park Zoo thank you  
for you help. Please feel free to contact me for more information.

**Findings**

Tail: The two most current (7.7.14) views of the distal tail are  
compared to multiple studies dating back to 3.4.14. The current study  
indicates a marked

decrease in soft tissue thickness surrounding the most distal three  
coccygeal vertebrae and gas is likely present between the skin and  
coccygeal

vertebrae. These distal three coccygeal vertebrae are modeled and  
relatively radiolucent compared to the more proximal vertebrae. The  
4th most

distal vertebra contains minor periosteal reaction and slight  
mottling. This vertebra is surrounded by either surface dirt or  
decaying necrotic skin

causing the ring of superficial radiopaque material. The 5th most  
distal coccygeal vertebra appears normal.

**Conclusion**

Tail: The distal three coccygeal vertebrae appear non-viable/ischemic  
and the early stages of a similar process is suspected to be involving  
the 4th

most distal vertebra. The demarcation between viable and nonviable  
soft tissue is located level with the mid 4th most distal vertebra;  
the 5th most

distal vertebra appears viable as does the soft tissue surrounding it.  
The planned amputation of the tail should include four of the most  
distal

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**Clinical Note:** **15.Jul.2014**

coccygeal vertebrae and one could even consider, to be safe, performing the amputation between the 5th and 6th most distal vertebrae.

Read By:  
H. Mark Saunders, VMD, MS, DACVR (LAS)

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**Clinical Note:** **28.Jul.2014**

Keepers are progressing on holding patient's tail up during training to help with possible procedure. Tail is at this time static from two weeks ago. Will continue to monitor and discuss with other vets. (LAC)

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**Clinical Note:** **3.Aug.2014**

Keepers reported that patient ear tag has separated more. On exam the area separating from the healthy ear tissue is more than previous exams and the tissue in between is slightly swollen, but the tissue underneath appears to be very healthy.

Plan: Keepers to clean with chlorhex twice daily and finish with SSD cream. (LAC)

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**Clinical Note:** **4.Aug.2014**

Rx: SSD CREAM 1b topically BID until further notice. (LAC)

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**Purpose:** antibiotic

**Prescription Data >>**

Starting date: **4.Aug.2014**

Drug: SSD CREAM 1b topically BID until further notice

Formulation: cream

Prescribed by: LAC (4.Aug.2014)

Filled by: LAS (4.Aug.2014)

Treatment weight: 3175 kg

Clinical response to treatment: Good

**Comments >>**

Topical treatment: Apply to to left ear tip

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Sex: Female Acc. #: 5
Age: 55Y 11M 2D Birth: 29.Oct.1958
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Clinical Note: 6.Aug.2014

Keepers called me out to barn in the early am to look at Ruth's ear with the skin tag. Exam: the healthy tissue is much less swollen and there is less tissue holding the ear tag onto the normal tissue, but just enough that it won't come off.

Later in the morning both elephants were out for their walk and I was able to look at the ear again. There was even less tissue holding it together and I was able to manually remove the piece. The tissue under it looks very healthy and will likely heal great in the two days. There was a very small amount of blood from where the tissue had still been adhered, but it stopped almost immediatley. Plan: instructed keepers to wash the ear area off when they were finished with the walk and put some SSD on it today. It should be fine after that. (LAC)

Clinical Note: 7.Aug.2014

Survey feet rads: Lateral radiographs of each of her feet were taken, nothing significant was found. Left and right rear radiographs were great quality, however the quality for the front feet was not as good, but detail of the proximal foot was decent. With this being the first attempt with protected contact radiographs, re-do radiographs were not performed, but keepers and vet staff are continuing to train the behavior and radiographs will only get better! (LAC)

Clinical Note: 12.Aug.2014

Rx: ENROFLOXACIN 6.35 gm PO q48h for 14 days. (AH00652)

Recheck patient's ear today, there is greatly decreased swelling from where the scab was attached and it appears to be healing very well. Keepers to clean the area with water twice daily and apply SSD once at the end of the day. (LAC)

Purpose: antibiotic

Prescription Data >>

Starting date: 12.Aug.2014

Drug: ENROFLOXACIN 6.35 gm PO q48h for 14 days

Formulation: 68.00 mg tablet

Bottle/Lot #: AH00652

Prescribed by: LAC (12.Aug.2014)

Filled by: LAS (12.Aug.2014)

Drug dosage: 2 mg/kg

Treatment weight: 3175 kg

Clinical response to treatment: Good

Comments >>

Printed on: 30.Sep.2014

/ISIS/MedARKS/5.54.h

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BUTTONWOOD PARK ZOO

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Asiatic elephant  
Name: RUTH

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Acc. #: 5  
Birth: 29.Oct.1958

**Prescription Record (continued):**

Tradename of drug used is BAYTRIL 60.  
ENROFLOXACIN = ENROFLOXACIN + STREPTOMYCIN SULFATE

**Clinical Note:**

25.Aug.2014

Rx: ENROFLOXACIN 7000 mg PO q72h for 14 days. (AH00652) (LAC)

**Purpose:** antibiotic

**Prescription Data >>**

Starting date: 25.Aug.2014

Drug: ENROFLOXACIN 7000 mg PO q72h for 14 days  
Formulation: 68.00 mg tablet  
Prescribed by: LAC (25.Aug.2014)  
Bottle/Lot #: AH00652  
Filled by: LAS (25.Aug.2014)  
Treatment weight: 3175 kg

Clinical response to treatment: Good

**Comments >>**

Tradename of drug used is BAYTRIL 60.  
ENROFLOXACIN = ENROFLOXACIN + STREPTOMYCIN SULFATE

**Clinical Note:**

3.Sep.2014

We have been slowly weaning Ruth off of systemic Baytril over the last month. As of today she is completely off of the oral antibiotics. Keepers are to continue with SDD, DMSO, Baytril mixture topically on tail.

Rx: SSD CREAM topically SID until further notice. (LAC)

**Purpose:** antibiotic

**Prescription Data >>**

Starting date: 3.Sep.2014

Drug: SSD CREAM topically SID until further notice  
Formulation: cream  
Prescribed by: LAC (4.Aug.2014)  
Filled by: LAS (4.Aug.2014)  
Treatment weight: 3175 kg

Clinical response to treatment: Good

**Comments >>**

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BUTTONWOOD PARK ZOO

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**Prescription Record (continued):**

Topical treatment: Apply to to tail.

**Clinical Note:**

Tail is static with no advancement of the separation. (LAC)

17.Sep.2014

**Clinical Note:**

Tail is static with no advancement of the separation. (LAC)

24.Sep.2014

**Clinical Pathology Records Report - ISIS/In-House Reference Values**  
**BUTTONWOOD PARK ZOO**

Scientific name: **ELEPHAS MAXIMUS**  
 Common Name: **Asiatic elephant**

		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
WBC	*10 <sup>3</sup> /UL	14.43	± 4.409	5.800	33.30	(1779)
RBC	*10 <sup>6</sup> /UL	3.06	± 0.51	1.78	5.15	(1501)
HGB	GM/DL	13.2	± 2.2	6.6	24.9	(1568)
HCT	%	37.1	± 6.0	20.3	68.0	(1890)
MCH	MG/DL	43.3	± 4.8	16.6	63.2	(1464)
MCHC	uug	35.4	± 3.6	16.9	68.6	(1536)
MCV	fL	122.3	± 13.4	47.1	213.2	(1491)
SEGS	*10 <sup>3</sup> /UL	4.822	± 2.925	0.291	23.90	(1502)
BANDS	*10 <sup>3</sup> /UL	1.402	± 2.124	0.000	11.40	(307)
LYMPHOCYTES	*10 <sup>3</sup> /UL	5.243	± 3.223	0.196	20.60	(1513)
MONOCYTES	*10 <sup>3</sup> /UL	3.677	± 2.909	0.000	9.983	(1273)
EOSINOPHILS	*10 <sup>3</sup> /UL	0.465	± 0.551	0.000	4.520	(1093)
BASOPHILS	*10 <sup>3</sup> /UL	0.173	± 0.105	0.000	0.508	(119)
NRBC	/100 WBC	1	± 1	0	3	(85)
PLATE. CNT.	*10 <sup>3</sup> /UL	469	± 215	121	1394	(428)
RETICS	%	0.8	± 1.6	0.0	4.4	(10)
GLUCOSE	MG/DL	91	± 21	33	223	(1257)
BUN	MG/DL	13	± 4	4	30	(1260)
CREAT.	MG/DL	1.6	± 0.4	0.7	3.3	(1230)
URIC ACID	MG/DL	0.2	± 0.3	0.0	3.4	(286)
CA	MG/DL	10.6	± 0.8	7.8	14.8	(1184)
PHOS	MG/DL	5.0	± 1.2	1.9	11.1	(724)
NA	MEQ/L	130	± 6	99	181	(859)
K	MEQ/L	4.6	± 0.5	3.2	6.6	(861)
CL	MEQ/L	89	± 4	77	103	(731)
IRON	MCG/DL	65	± 23	29	158	(82)
MG	MG/DL	2.10	± 0.53	0.00	2.90	(68)
HCO3	MMOL/L	26.3	± 3.0	19.0	32.3	(55)
CHOL	MG/DL	48	± 19	0	189	(599)
TRIG	MG/DL	61	± 42	10	329	(745)
T. PROT. (C)	GM/DL	8.1	± 0.8	5.8	11.3	(1227)
T. PROT. (R)	GM/DL	8.4	± 0.4	7.8	9.2	(23)
ALBUMIN (C)	GM/DL	3.2	± 0.5	1.9	4.7	(648)
GLOBULIN (C)	GM/DL	5.0	± 1.0	2.7	8.6	(639)
AST (SGOT)	IU/L	22	± 11	4	97	(1227)
ALT (SGPT)	IU/L	7	± 8	0	72	(781)
T. BILI.	MG/DL	0.2	± 0.2	0.0	1.2	(765)
D. BILI	MG/DL	0.1	± 0.1	0.0	1.3	(233)
I. BILI.	MG/DL	0.1	± 0.1	0.0	0.6	(224)
AMYLASE	U/L	3017	± 2492	0	9866	(170)
ALK. PHOS.	IU/L	143	± 66	28	641	(1157)
LDH	IU/L	655	± 703	46	4769	(495)



**Clinical Pathology Records Report - ISIS/In-House Reference Values**  
 BUTTONWOOD PARK ZOO

Scientific name: **ELEPHAS MAXIMUS**  
 Common Name: **Asiatic elephant**

		ISIS Values		Min.	Max.	(N)
		Mean	S.D.			
CPK	IU/L	225 ±	170	23	1260	(486)
OSMOLARITY	MOSMOL/L	264 ±	29	0	325	(98)
ALPHA GLOB.	MG/DL	250.4 ±	353.1	0.7	500.0	(2)
ALPHA-1 GLOB	MG/DL	0.8 ±	0.1	0.7	1.0	(6)
ALPHA-2 GLOB	MG/DL	0.9 ±	0.2	0.7	1.1	(6)
BETA GLOB.	MG/DL	1.0 ±	0.6	0.6	1.4	(2)
Body Temperature:		36.3 ±	0.5	36.0	37.0	(4)
CO2	MMOL/L	24.8 ±	4.0	15.8	37.0	(230)
CORTISOL	UG/DL	2.0 ±	1.0	0.5	5.4	(35)
ESR	MM/HR	98 ±	32	53	130	(7)
FIBRINOGEN	MG/DL	371 ±	181	0	810	(238)
GGT	IU/L	7 ±	5	0	33	(314)
LIPASE	U/L	19 ±	30	0	127	(53)
PROGESTERONE	NG/DL	18.82 ±	62.45	0.020	346.0	(379)
TESTOSTERONE	NG/ML	20.34 ±	27.95	0.570	40.10	(2)
A-TOCOPHEROL	UG/DL	19 ±	15	0	42	(8)
TOTAL T4	MCG/DL	10.0 ±	2.7	4.2	12.6	(10)
T3 UPTAKE	%	28 ±	2	26	29	(2)
ALBUMIN (E)	GM/DL	4.1 ±	0.6	3.5	4.9	(4)
GAMMA GLOB	GM/DL	2.9 ±	2.9	0.0	9.0	(11)