

UNIDAD DE ZOOLOGICOS DE LA CIUDAD DE MEXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

EXPEDIENTE CLÍNICO
DATOS GENERALES POR ESPECIE

CLAVE CABMS: _____

CLASIFICACIÓN TAXONÓMICA:

NOMBRE COMÚN: Gonilla de Tierras Bajas

CLASE: Mammalia

ORDEN: Primates

FAMILIA: Pongidae

GÉNERO: Gonilla

ESPECIE: gonilla

SUBESPECIE: _____

CATEGORIA CITES: Exoticas, CITES I

DISTRIBUCIÓN GEOGRÁFICA: _____

Africa Ecuatorial / entern. graf.

TIPO DE ECOSISTEMAS: Bosque Tropical

ALIMENTACIÓN EN VIDA SILVESTRE: Vegetales, brotes de tallos, hojas

LONGEVIDAD: En cautiverio hasta 34 años

TALLA PROMEDIO: _____

PESO ADULTO PROMEDIO: < 275

DATOS REPRODUCTIVOS:

EDAD A LA MADUREZ SEXUAL: _____

TIPO DE CICLO ESTRAL: 33 a 38 días

DURACIÓN DEL ESTRO: 3 días

ÉPOCA DE EMPADRE: _____

GESTACIÓN / INCUBACIÓN: 225 a 229 días

NÚMERO DE CRÍAS: 1 cría (gemelos)

EPOCA DE NACIMIENTOS: _____

CARACTERÍSTICAS ETOLÓGICAS: Son muy territoriales ocupan un territorio de veintitantos a cuarenta hectáreas construyen sus nidos para dormir en los árboles.

OBSERVACIONES:

UNIDAD DE ZOOLOGICOS DE LA CIUDAD DE MEXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

EXPEDIENTE CLINICO INDIVIDUAL

CLAVE CABMS: _____

NOMBRE COMÚN: Gonla de Tierras Bajas

NOMBRE PROPIO: Bantu

GÉNERO: Gonlla

ESPECIE: gonlla

SEXO: macho

SEÑAS PARTICULARES: _____

FECHA DE NACIMIENTO: 20-09-91 LUGAR: _____

HIJO DE 001 Dinga CLAVE DE IDENTIF. 001

Y DE Mahari CLAVE DE IDENTIF. 003

TIPO DE MARCAJE Microchip AVID

CLAVE 068*259*310

NÚMERO DE REGISTRO EN INVENTARIO _____

NÚMERO DE REGISTRO STUDBOOK 1193/608

FECHA DE APERTURA DE EXPEDIENTE: 20-09-91

FECHA DE INGRESO AL ZOOLOGICO: 20-09-91

MOTIVO: Nacimiento

PROCEDENCIA: _____

FECHA DE BAJA: _____

MOTIVO: _____

OBSERVACIONES: _____



HOSPITAL VETERINARIO
"M.V. MANUEL CABRERA VALTIERRA"
EXPEDIENTE CLÍNICO INDIVIDUAL

NOMBRE COMÚN GORILA DE TIERRAS BAJAS

NOMBRE PROPIO BANTU

GÉNERO Gorilla

ESPECIE gorilla

SUB ESPECIE gorilla

SEXO MACHO

SEÑAS PARTICULARES _____

FECHA DE NACIMIENTO 20 DE SEPTIEMBRE 1991 LUGAR ZOOLOGICO DE CHAPULTEPEC.

HIJO DE DINGA CLAVE IDENT. GORGOR-001 (#116)

Y DE MAHARI CLAVE IDENT. GORGOR-002 (#210)

TIPO DE MARCAJE _____

CLAVE _____

NÚMERO DE REGISTRO EN INVENTARIO GORGOR-003 (Mex 1/g)

NÚMERO DE REGISTRO STUDBOOK 1193/608

FECHA DE APERTURA DE EXPEDIENTE 18 DE FEBRERO DE 1992

FECHA INGRESO AL ZOO. 20 DE SEPTIEMBRE DE 1991. (NACIMIENTO).

PROCEDENCIA nacido en Chapultepec
(ANEXAR CERTIFICADOS DE SALUD)

FECHA DE BAJA: _____

MOTIVO: _____

OBSERVACIONES: _____

MEXICO, D.F.. 20. DE SEPTIEMBRE DE 1991.

ANIMALES EN TRATAMIENTO MEDICO:

ESPECIE	DIAGNOSTICO	TRATAMIENTO
0.1 ELEFANTE RANNY	CUARTEADURA EN USA MAI	OBSERVACION
1.0 OSO POLAR ISBJORN	ULCERA CRONICA POR DECUBITO MAD	IMALGEN, ROMPUN, NEGASUNT, QUIRODINE, AMIKIN, BENZETACIL, SOL. ISOT, CLORURO DE SODIO
0.1 PANDA TOHUI	BAJA DE PESO	OBSERVACION
1.0 LEON MARINO "TOMAS"	QUERATITIS (OJO DER)	FURACIN POM.
2.0 CABRA DE ANGORA CCI	DESPARASITACION EXTERNA	OBSERVACION
1.0 GORILA TIERRAS BAJAS "DINGA"	DIARREA	OBSERVACION
1.0 AVESTRUZ CUELLO AZUL (ALBERGUE SIKAS)	TRAUMATISMO MID	FLUVET
0.1 OSO POLAR "VIEJA"	ANOREXIA	OBSERVACION
0.1 PECARI DE COLLAR CRIA	INCOORDINACION MIEMBROS POSTERIORES.	ESTREPTOBENZETA- CIL, BENZETACIL
0.1 LOBO DEL ARTIC "CATALINA"	ALIM. ARTIFICIAL. LECHE DIARREA MECANICA	LALA Y CLAVEL OBSERVACION
0.1 PERRO "ISBJORNCITA"	INCOORDINACION TREN POST.	OKARSIVAN.
0.1 COYOTE	OVARIO HISTERECTOMIA	OBSERVACION
1.0 MONO AZUL	CONTROL ANTICONCEPTIVO	OBSERVACION
0.1 TIGRE DE BENGALA "DIVA"	LACERACION EN PENE	HEMOSIN K
1.0 JAGUAR "MAD"	ANOREXIA	GENTOCIN
0.1 VENADO COLA BLANCA	DIARREA	GENTOCIN
0.1 LEON AFRICANO "SAMANTHA"	DIARREA	BACTROSINA
0.1 GORILA DE TIERRAS BAJAS "MAHARI"	CONTROL ANTICONCEPTIVO	COVINAN
1.0 MONO OSO	DIARREA	OBSERVACION
1.0 MONO ARAGA "PAULINO"	DIARREA	GENTOCIN, KAOTIOTIC GENTOCIN KAOTIOTIC, TRED, HEMOSIN K

NOTA: - EL DIA DE HOY, NACIO 1.0 GORILA DE TIERRAS BAJAS, DE UN PARTO EUTOCICO DE LA HEMBRA GORILA LLAMADA "MAHARI", OCURRIDO APROXIMADAMENTE ENTRE LAS 05:00 Y LAS 06:30 (ESTO SE DEDUCE DEBIDO A LA OBSERVACION DE LAS CONDICIONES DE LA PLACENTA LA CUAL SE NOTABA MUY FRESCA, LIMPIA Y DE UN COLOR ROJO BRILLANTE Y A QUE LA HEMBRA A LAS 07:00 Hrs. SE ENCONTRO LIMPIANDO EL PELAJE DE SU CRIA). LA CRIA SE NOTO EN BUEN ESTADO GENERAL MOSTRANDO LOS OJOS ABIERTOS Y BRILLANTES Y CONSERVO EL CORDON UMBILICAL UNIDO A LA PLACENTA HASTA QUE SE DESPRENDIO POR SI SOLA HASTA LAS 21:00 HRS. APROX. LA PLACENTA REGISTRO UNA MEDIDA APROXIMADA DE 22 X 19 X 2 Cm.. HASTA EL DIA DE HOY NO HAY LA CERTEZA DE QUE LA GLANDULA MAMARIA DE LA HEMBRA TENGA PRODUCCION, SIN EMBARGO LA CRIA REALIZA INTENTOS REPETIDOS POR AMAMANTARSE, ASIMISMO SE MONTO GUARDIA LAS 24 Hrs. POR PARTE DE LOS AYUDANTE DE ZOOTECNISTA DE LA SECCION, INICIANDO LA MISMA LA C. TERESA REYNOSO ROCIO.

- EL DIA DE HOY FUE RECIBIDO EN DONACION 0.1 MONO ARAGA (Ateles geoffroyi) DE APROXIMADAMENTE DOS AÑOS DE EDAD, EN APARENTE BUEN ESTADO GENERAL, MUY IMPRONTADO CON LA ESPECIE HUMANA, RESPONDE AL NOMBRE DE "CHARLIE" Y SE ALOJO EN EL HOSPITAL VETERINARIO PARA SU CUARENTENA Y OBSERVACION.

- EL DIA DE HOY SE PESARON A LOS PANDA GIGANTE REGISTRANDO LOS SIGUIENTES DATOS:

EJEMPLAR	PESO (Kg.)
CHIA-CHIA	111
TOHUI	119
LIANG-LIANG	133
XIU-HUA	156
SHUAN-SHUAN	133
XIN-XIN	38

NACIMIENTOS:

1.0 GORILA DE TIERRAS BAJAS

FECHA:
20-SEPT-91

ANIMALES EN TRATAMIENTO VITAMINICO Y/O GERIATRICO.

ESPECIE	TRATAMIENTO
1.0 PANDA G. CHIA-CHIA	POLY-VI-SOL, VIT E.
0.1 PANDA G. XIUHUA	VIT. E
0.1 PANDA G. TOHUI	TERAGRAN
1.1 RINOCERONTES NEGROS	VITAMINA E
SECC. GAMOS EUROPEOS	FERVINAC
2.2 ANTILOPE ELAND	FERVINAC
1.0 ORANGUTAN CRIA "JAMBI"	TRIVISOL
0.1 GIRAFA "SUSANA"	FERVINAC
SECC. LEONES MARIÑOS	SEA TABS
1.0 PANTERA CRIA "ASHANTI"	POLYVISOL
0.1 LEON MARINO "TOOTSIE"	TERAGRAN MAT

Barki

On January 27, 1992, ~~a~~ ~~an~~ adult male of the
 lowland gorilla was seen to ~~be~~ ~~the~~ ~~gorilla~~ (Conilla gilla gilla)
 was seen ~~by its keeper~~ ~~to~~ ~~be~~ ~~presenting~~
 diarrhea ~~that was not seen to~~ ~~be~~ ~~presenting~~
~~for~~ ~~the~~ ~~last~~ ~~12~~ ~~hours.~~ ~~It~~ ~~was~~ ~~the~~ ~~disappearance~~ ~~of~~ ~~the~~ ~~sub~~
 A direct fecal smear showed ^{at least one} Balantidium trypozoa

After 12 hours he was not seen to suck ~~any~~ ~~more~~
~~from~~ ~~its~~ ~~mother's~~ ~~breast.~~ ~~so~~ ~~it~~
^{after a night of that same day}
 It was decided to tranquilize its mother to finish
 gorilla (10 mg/kg ketamine) and ~~then~~ ~~bring~~ ~~it~~
 to the young male; numerous "mg betadi"
 solution was given iv at a ~~slow~~ ^{slow} ~~rapid~~ ~~dose~~
~~rate~~ ^{dose} of 40 ml/kg, Oxitechnol was
 given at a ~~single~~ ^{single} dose of 20 mg/kg, and
 the dose of cask-pectin was given orally
 and a dose of _____ an ~~antibiotic~~ antibiotic

was given. ~~After~~ ~~4~~ ~~hours~~ ~~later~~, the young was returned to
 its mother. For a few hours, he was seen ~~being~~
 to ~~suck~~ ~~the~~ ~~mother's~~ ~~breast~~ ~~or~~ ~~to~~ ~~hold~~ ~~on~~ ~~to~~ ~~its~~ ~~mother's~~ ~~areola~~
 but ~~he~~ ~~again~~ ~~started~~ ~~to~~ ~~show~~ ~~the~~ ~~same~~
 and could not hold on to its mother any more
 24 hours later it was decided to ~~sedate~~ ~~tranquilize~~
 the female ~~again~~ ~~and~~ ~~to~~ ~~be~~ ~~a~~ ~~way~~ ~~to~~ ~~finish~~

On January 29 (day) the gang was p/b dehydrated.
An intubator and treatment was installed. It is possible
for dehydration and electrolyte imbalance, a 4.250k
per charge of intravenous fluids was
given at a rate of 40ml/kg and out 18. (2 bi)
fluids were given at a rate of 100ml/kg
in 4 hours. Metformin was given to treat
acidosis (35mg/kg/day) ^(treatment that continued for 7 days) after these, a 12 hour
fasting was installed. ~~at or January 30~~

On day 2, treatment was the same but
a milk replacer was given.
Antibiotic therapy was accomplished giving
gentamicin (7.5 mg/kg/day) and ampicillin (100mg/kg/day)
because of a secondary infection caused by
E. coli continuous for 5 days

On day 3 fluid therapy was installed central
for 4 days in a row at a rate of 160ml/kg/d
Very narrow to which has

Treatments

Paromomycin ^{state} 25-35mg/kg tid

Metronidazole 603 mg s-tid

Tetracycline - ~~10mg/kg~~

Doxycycline - 100mg/sid ^{dose max 1.5mg/kg} ~~100~~ 0.5mg/kg

Iodoquinol - 30mg/kg 650mg tid

~~Trimec~~

Oxytetracycline 10mg/kg sid

~~Metronidazole~~

Dehydroemetine dihydrate - 120-150mg sid

Hexazol - 840mg in 5 days 10 to 15 days

500-~~800~~mg ~~bid~~ bidorally 7 days

Trinidazol -

1170-60mg sid
adults 1.5g/kg
3 days - 6 days

LABORATORIO CENTRO HOSPITALARIO TLACOTALPAN S.A. DE C.V.

Tlacotalpan # 51 Col. Roma Sur C.P. 06760

Jefe de Laboratorio: Q.F.B. Ma. DOLORES HUERTA ARIAS
 Tels.: Directo: 5-84-55-37 Conn. 5-74-62-33 Ext. 113 y 267

Paciente: GÓRILA CRIA
 FERNANDA GUAL

Folio: AQ / -214 del 27/01/92
 Reg.: 6577 Hora: 10:11
 Fecha: 30-01-1992 Pag. 1
 PARTICULARES

EXAMEN RESULTADO VALORES DE REFERENCIA

CULTIVO
 ESTUDIO BACTERIOLOGICO
 CULTIVO

COPROCULTIVO
 Escherichia Coli
 Serología para Entamoeba Coli grupo 1: NEGATIVO
 Serología para Entamoeba Coli grupo 2: NEGATIVO

ANTIBIOGRAMA

AC. NALIDIXICO	AMIKACINA	AMPICILINA
	S	R
CEFALOTINA	CEFTRIAXONA	CEFOTAXIMA
S		
CEFOPERAZONA	CIPROFLOXACINA	CLINDAMICINA
	S	
CLOXANTHICOL	NOLEDOXACILINA	ERITROMICINA
INDOXACINA	ESTREPTOMICINA	GENTAMICINA
		S
IMIPENEM	MOXEFLOXACINA	METICILINA
	S	
NORFLOXACINA	PENICILINA	PIPERACILINA
SULFAMETOXAZOL-TRIMETOPRIM	TOBRAMICINA	VANCOMICINA
NETILMICINA		
S		

MEXICO



NOMBRE Bantu

FECHA	30-1-92									
DIA HOSP./DIA POSTP										
PESO CORPORAL	4.250 Kg									
PRESION VENOSA										
DIETA	DL	20ml. Aroz	60ml. Aroz	20ml. Man	30ml. Man	60ml. Man	20ml. Man	100ml. Man	100ml. Man	D
LIQUIDOS ORALES	8:40	9:50	12:20	2:10	3:30	5:25	5:45	9:00		
LIQUIDOS PARENTERALES										
ORINA										
VOMITO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
SUCCION										
EVACUACION	10:45									
SUDOR (0 a +++)	0	0	0	0	0	0	0	0	0	
OTRAS PERDIDAS										
BALANCE										
ACTIVIDAD	RA	RA	RA	RA	RA	RA	RA	RA	RA	
BAÑO										
VISITA MEDICA	SI	SI	SI	SI	SI	SI	SI	SI	SI	
CAMBIO APOSITO ESTADO HERIDA										
TEMPRA	8:30	5:45								
FIRGENASE	8:30	4:30	12:36							
MEDICAMENTOS	NEOMELUBRINA	11:13	7:14							

Registrar con iniciales y número de tarjeta el primer y el último renglón de cada turno

DIETAS:
 = Dieta normal, DD = Dieta de diabético,
 = Dieta blanda, DL = Dieta líquida,
 = Dieta Especial (especificar).

ACTIVIDAD:
 = reposo absoluto en cama,
 = reposo en sillón,
 = movilización limitada sólo al baño,
 = movilización a voluntad
 = paciente intranquilo.

SERVACIONES: Se realizó
 copio parasitológico
 resultando negativo
 Balamidium



ZOOLOGICO DE CHAPINGO

Nombre: _____
 Cuna: _____
 EXPEDIENTE _____
 HOJA # _____
 PESO _____

FECHA 1-11-98

4, 750 por parat

H O R A S	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5	6	7	TOTAL	T. 24 HR.
Temperatura																										
F.C.																										
F.R.																										
T.A.																										
P.A. bd/.Cef																										
INGRESOS																										
V. Oral																										
V. Parenteral																										
Medicamentos																										
MEDICAMENTOS																										
V. PARENTERAL																										
TOTAL POR TURNO																										
EGRESOS																										
Drina																										
Evacuación																										
Succión																										
Vómito																										
Residuo																										
P.I.																										
Muestras																										
BALANCE PARCIAL DE 8 HRS.																										

Firma Médico
 413

109.7

79.01

211.5

4.5
 2.1

589.8
 344.5
 2710.7



ZOOLOGICO DE CHAUTAUQUE

Cuna: DOMINGO
 EXPEDIENTE _____
 HOJA # _____ PESO _____

FECHA 3 febrero

A Pentax
D. Gontarino
D. Flores

H O R A S	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5	6	7	TOTAL	T. 24 HR
Temperatura																										
F.C.														37.5												
F.R.																										
T.A.																										
P.A. bd/.Cef																										
INGRESOS																										
V. Oral																										
V. Parenteral																										
Medicamentos																										
MEDICAMENTOS																										
V. PARENTERAL																										
TOTAL POR TURNO																										
EGRESOS																										
Orina																										
Evacuación																										
Succión																										
Vómito																										
Residuo																										
P.I.																										
Muestras																										
BALANCE PARCIAL DE 8 HRS.																										

RECIBIDO TOTAL

TOTAL

TOTAL

TOTAL

233.2 + 473.9

+ 18.8

+ 186.9

136.8 486.1

Firma Médico

2008

LABORATORIO CENTRO HOSPITALARIO TLACOTALPAN, S.A. DE C.V.
Tlacotalpan # 51 Col. Roma Sur C.P. 06760

Jefe de Laboratorio : Q.F.B. Ma. DOLORES HUERTA ARIAS.
Tels. : Directo: 5-84-55-37 Cona.: 5-74-62-33 Ext. : 113 y 267

Paciente : BANTU GORILA
Dr. A QUIEN CORRESPONDA

Folio : AD / 855 del 06/02/92
Reg. : 7061 Hora: 16:17
Fecha : 06-02-1992 Pag. 1
PARTICULARES

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EXAMEN	RESULTADO	VALORES DE REFERENCIA
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CULTIVO

ESTUDIO BACTERIOLOGICO
EXAMEN BACTERIOSCOPICO
CULTIVO

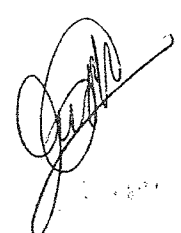
C O P R O C U L T I V O

BACILOS GRAM NEGATIVOS
DESARROLLO DE Proteus vulgaris
SEROLOGIA PARA SALMONELLA : N E G A T I V O

ANTIBIOGRAMA

AC. NALIDIXICO	AMIKACINA S	AMPICILINA R
CEFALOTINA	CEFTAZIDINA	CEFOTAXIMA S
CEFOPERAZONA	CIPROFLOXACINA R	CLINDAMICINA
CLORANFENICOL R	DOCLOXACILINA	ERITROMICINA
ENOXACINA	ESTREPTOMICINA	GENTAMICINA S
IMIPENEM	LOMEFLOXACINA S	METICILINA
NORFLOXACINA S	PENICILINA	PIPERACILINA
SULFAMETOXAZOL-TRIMETOPRIN S	TOBRAMICINA	VANCOMICINA
AZTREONAM : † S †		

GRACIAS POR SU PREFERENCIA
TESILAB (M.R.)


ATENTAMENTE
Q.F.B. Ma. DOLORES HUERTA A.

Jefe de Laboratorio : D.F.B. Ma. DOLORES HUERTA ARIAS.
 Tels. : Directo: 5-84-55-37 Conn.: 5-74-62-33 Ext. : 113 y 267

Paciente : GORILA MACHO
 Dr. A QUIEN CORRESPONDA

Folio : 00 / 519 del 07/02/92
 Reg. : 7255 Hora: 15:37
 Fecha : 07-02-1992 Pag. 1
 PARTICULARES

EXAMEN

RESULTADO

VALORES DE REFERENCIA

CULTIVO

ESTUDIO BACTERIOLOGICO
 EXAMEN BACTERIOSCOPICO
 CULTIVO

C O P R O D U L T I V O

BACILOS GRAM NEGATIVOS
 DESARROLLO DE Escherichia coli

ANTIBIOGRAMA

AC. MALIDIXICO	AMIKACINA	AMPICILINA
	S	R
CEFALOTINA	CEFTAZIDINA	CEFOTAXIMA
		S
CEFOPERAZONA	CIPROFLOXACINA	CLINDAMICINA
	S	
CLORANFENICOL	DODLOXACILINA	ERITROMICINA
R		
ENOXACINA	ESTREPTOMICINA	GENTAMICINA
		S
NORFLOXACINA	PENICILINA	PIPERACILINA
S		
SULFAMETOXAZOL-TRIMETOPRIN	TOBRAMICINA	VANCOMINIDA
	R	
NETILMICINA : * S *		
AZTREDNAM : * S *		

GRACIAS POR SU PREFERENCIA
 TESILAB (M.R.)

ATENTAMENTE
 D.F.B. Ma. DOLORES HUERTA, A.

MEDICAL TREATMENT OF BALANTIDIASIS IN AN INFANT LOWLAND GORILLA AND ITS SUCCESSFUL REINTRODUCTION AT CHAPULTEPEC ZOO, MEXICO CITY

M.V.Z. FERNANDO GUAL SILL * M.V.Z. JOSE PULIDO REYES * DR. MAX RODRIGUEZ **, DR. EDUARDO MARVAN **, DR. MA. TERESA ROJAS DE GUAL ***
(MAY, 1992)

ABSTRACT

For the first time in Mexico a lowland gorilla was born at Chapultepec Zoo, Mexico City on September 20, 1991. By this time its mother (donated by Cincinnati Zoo) was 30 years old and its father (donated by Memphis Zoo) 31 years old and considered to be sterile. Twelve months after being introduced a male gorilla was born.

Both parents are considered to be Balantidium coli carriers.

When the young gorilla was 4 months old, he was seen lethargic, he frequently passed small amounts of brown watery feces, and for more than 12 hours he was not seen suckling. B. coli trophozoites were seen in a direct smear. Although an initial treatment was installed, the situation continued for more than 24 hours. It was decided to sedate the female and treat the young one. Intravenous fluid therapy (160 ml/kg of body weight/day) was installed for 4 days in a row to correct dehydration and electrolyte unbalance. Oral fluids were given only after 12 hours of fasting. Oral metronidazole (35 mg/kg/day) was given for 7 days to treat balantidiasis; Gentamicin (7.5 mg/kg/day) and ampicillin (100 mg/kg/day) were given IV for 5 days to control a bacterial secondary infection caused by Escherichia coli.

After 7 days of physical separation from its parents (he was always maintained in visual contact), the infant gorilla was successfully reintroduced. Oral metoclopramide (10 mg/bid for 10 days) was given to the female to help her continue lactation.

* Veterinary Staff, Chapultepec Zoo, Mexico City.
** Pediatric Unit, Hospital Español, Mexico City.
*** Pediatric Unit, Clínica B, IMSS, Mexico City.

Neonatología Práctica Luis Jasso

1

Pag 125

examen laboratorio Gastroenteritis

- Coprocultivo

- pH y azúcares en heces

intolerancia a la lactosa

6.5 o más -
normal 7.0

no este erayuro, ultra tenue de color < 4 horas per

- tipo de hidratación :
- isotónica
- hipertónica
- hipotónica

Complicaciones :
deshidratación
acidosis
intolerancia azúcares
ileo paralítico
necrosis intestinal
meningitis
septicemia
coagulación intravascular
insuf. renal funcional u orgánica
trastornos de sero reos

Tratamiento :
- control temp.
- cuantificar gastrocuerpo
- peso corporal c/8 - 24 hrs
- Perro abdominal
- ayuno mínimo 12 hrs
- calostro humano al reanudar orinar (5ml/kg/24
orinar durante 3 días)
- restituir líquidos y electrolitos.
mientras no se cubren requerimientos de líquidos y
calorías por vía oral se deberá complementar con sol. enterales

Primeros 3 días - Gluc^{5%} - heart.

Desped 2 a 1

req. Na: O.S - 2 mEq / kg / 24 hrs

Cart. líquidos 150 ml / kg / día

agrega 20% por pérdidas de
evacuaciones, vomito y fiebre

(algunos 200 - 250 ml / kg / día con pérdidas)

carga rápida 20 - 40 ml / kg hearten

aporte calórico 30 - 40 kcal / kg / día

Ureas corporales → potasio

	AMEq/lit	Ang%	
K ⁺	mg% x 0.256	meq/lit x 3.91	1 g
Na	mg% x 0.435	MEq/lit x 2.30	5.3 m

Veraset 18 gotas/ml
Perforax

- Mantecor oral - ventosas

Gluc	20g	KCl	2.25g
Cloruro de S ₂	3.5g	Agua cbp	1 litro
Bicarbonato Na	2.5g		

Oral 100ml / kg solución → 50 ml agua / kg

- apnea de brachio 20 gotas / mn

- bicarbonato sódico 3 mEq / kg / día

- Ampicilina 150 - 200 mg / IV o IM / día succarado c/8 hrs

~~- Gentamicina 1.5 mg / kg / día c/8 hrs~~

What Is Your Diagnosis?

Case 1

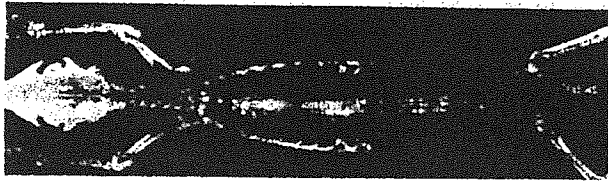


Fig 1—Ventrodorsal and lateral radiographs of a 4.5-year-old male cushmanse, a viverrid, with acute onset of lethargy, anorexia, emaciation, and oral hemorrhage.

History—A 4.5-year-old male cushmanse (*Crossarchus obscurus*), a viverrid, had acute onset of lethargy, anorexia, and oral hemorrhage. The cushmanse was dehydrated, emaciated, and hypothermic. Oral ulcers were present. The cushmanse was anesthetized with a combination of tiludamine HCl and zolazepam HCl (6 mg/kg) for fluid therapy and blood collection. Shortly after induction of anesthesia, the cushmanse had respiratory and cardiac arrest and died. A postmortem cardiac blood sample and radiographs were obtained (Fig 1).

Make your diagnosis from Figure 1—then turn the page

discontinued a intestinal al-

neonata. Routine prophylactic antibiotics should be discouraged. Therapy of the infant gorilla with *Salmonellosis* with broad-spectrum antibiotics altered his intestinal flora and precipitated a vitamin K-dependent coagulation disorder.²⁴

The severe malabsorption syndrome of the infant gorilla resulted from a destruction of the normal intestinal villi by the *Salmonella*. In the absence of intestinal villi, many nutrients were poorly absorbed. The damaged intestinal mucosa secretes fluid electrolytes and trace metals, especially zinc and copper.²⁵ Despite supplemental zinc therapy (100 µg/kg), the infant gorilla developed physical findings consistent with zinc deficiency, which resolved when his daily intake of zinc, copper, and biotin was increased.

Total parenteral nutrition is an effective therapy for chronic malabsorption syndromes.²⁶ During TRN therapy, the bowel is rested. In time, the intestinal villous structures regenerate and normal absorptive function returns. Although a regeneration of our gorilla occurred after 3 months of TRN, the gorilla did not tolerate subsequent oral feedings and he lost all interest in food.

Complications have been reported with TRN therapy.²⁷ The infant gorilla developed many of these reported complications, including catheter-induced hydrothorax, septicemia, hypolipidemia, deficiencies in trace metals and vitamins, and cholestatic jaundice. Cholestatic jaundice develops in many human infants receiving TRN.²⁸ The cause of this disorder is not known, but may be related to nondefined hepatotoxic compounds in the TRN fluid and/or to the lack of intestinal stimulation of bile flow.²⁹ The condition resolves once the TRN therapy is

natural space, TRN-induced cholestatic jaundice,³⁰ and septicemia due to *Staphylococcus epidermidis*. At 4 months of age, the gorilla developed a microcytic-hypochromic anemia indicative of an iron deficiency. Iron³¹ was given in the form of iron therapy precipitated a hemolytic anemia due to vitamin B₁₂ deficiency.³² Vitamin B₁₂ was given orally (100 IU/day) and the hemolytic anemia resolved. Attempts to reintroduce oral feedings on several occasions were not successful; the infant gorilla either refused to eat or developed profuse watery diarrhea associated with vomiting and abdominal distention. After approximately 9 months of TRN, the gorilla developed septicemia due to *Escherichia coli*, followed by congestive heart failure and death.

Necrosis, moderately severe body changes were seen (ie, fatty metamorphosis, cholestasis, colic fibrinos, and focal bile duct hyperplasia). Pancreatic acinar cells were moderately atrophic. The duodenum contained dilated lymphatics deep in the lamina propria. Except for mild neutrophilic infiltration, the mucosa of the small intestine and colon was normal. Lymphoid structures were atrophied with small to absent germinal centers and follicular-reactive hyperplasia. Pulmonary alveoli contained hemorrhagic edema and gram-negative bacilli, but evidence of an inflammatory cellular reaction were not seen. There were intravascular findings of disseminated intravascular coagulation.

Salmonellosis and other gram-negative infections are common in many zoo nurseries.³³ Prevention of these infections requires routine surveillance cultures of the nursery environment, strict handwashing by nursery personnel, and protective isolation for the

1. Scullis P, Bellisari A. First year growth of gorillas at the Columbus (Ohio) Zoo. *Primates Anthropol (Suppl)* 1981;14:98.

2. Kishida Y, Ross Laboratories, Columbus, Ohio.

3. Kishida WI. Nutritional consequences of acute diarrhea in children. In: Bellant JA, ed. *Acute diarrhea: its nutritional consequences in children*.

4. CHO-FREY, Spruce, Palo Alto, Calif (unavailable).

5. Ross Laboratories, Columbus, Ohio.

6. Aquanaphylyon, Marck Sharp and Dams, West Point, NY.

7. Amelkin, Bristol, Syracuse, NY.

8. Arrow International Inc, Reading, Pa.

9. Trevesol, Baxter Travenol Laboratories, Deerfield, Ill.

10. Hiram, Hill ID, Westerville, Calif.

11. Xelco absorption in infants with severe protracted diarrhoea. *S Afr Med J* 1980; 58:598-600.

12. Dahlqvist A. Method for assay of intestinal disaccharidases. *Anal Biochem* 1964;7:18-23.

13. Bower RH. Hepatic complications of parenteral nutrition. *Strain Liver Dis* 1983;3:118-20.

14. Imbren, Merrill Dow, Cincinnati, Ohio.

15. Madborn DK, Gross S. Vitamin K dependent anemia in the primate infant. I. Effects of large doses of medicinal iron. *J Pediatr* 1971;79:688-690.

16. Dilard CA, Downey JH, Tappel AL. Effects of anti-oxidants on lipid peroxidation in reyn-olded rat. *Lipids* 1984;19: 127-133.

17. Madborn DK, Gross S. Vitamin K dependent anemia in the primate infant. II. Relationship between gestational age and absorption of vitamin E. *J Pediatr* 1971;79:681-688.

18. Krusovszky, Armour, Tarrytown, NY.

19. The great ape of Africa. *J Reprod Fert (Suppl)* 1980;28:149-153.

20. Mount MK, Waldman BF, Buffington T. Vitamin K and its therapeutic importance. *J Am Vet Med Assoc* 1982;181: 1354-1366.

21. Less PA, Hathaway WE. Vitamin K in human infants. *Am J Clin Nutr* 1983;108:451-459.

22. Wofford SL, Auerbach CH, Martin EB et al. Zinc in total parenteral nutrition: requirements and metabolic effects. *Gastroenterology* 1979;76:468-487.

23. Letimer JS, McClain CJ, Sharp HL. Clinical zinc deficiency during zinc-supplemented parenteral nutrition. *J Pediatr* 1980;97:434-437.

24. Duerck SL, Jackson D. The chest bones of a gorilla. *Am J Phys Anthropol* 1983;12:195-201.

25. Head WC, DeSocil JM. Newer methods for feeding low birth weight infants. *Clin Pediatrics* 1976;2:309-326.

The clinically aggressive lymphoma with marked T-cell abnormalities seen in the lowland gorilla of the present report resembled the clinical syndrome of human T-lymphotropic virus-related lymphomas found in man and other primates.¹⁻³ The gorilla had antibody titers for cytomegalovirus, Epstein-Barr virus, and Yaba virus (viruses that have been associated with immunosuppressive and neoplastic diseases in man and other primates); however, the importance of these viral agents in the clinical expression of retrovirus infection in man and nonhuman primates remains to be defined.⁴ Transmission of T-cell tropic retrovirus requires intimate contact with blood or secretions containing infective virus. The virus can be disseminated by biting, fighting, sexual intercourse, and kissing. Vertical transmission of retrovirus from mother to fetus may have occurred. Origin of the antibodies to human T-cell lymphotropic virus, type I in the gorilla is not clear. The severity of clinical illnesses caused by human T-lymphotropic virus has generated anxiety about possible anti-

genetically developed rough endoplasmic reticulum. Formalin-fixed, paraffin-embedded sections were stained for human immunoglobulin (IgG, IgM, IgA, and kappa and lambda chains, using the peroxidase-antiperoxidase method⁵ with commercial antisera.⁶ Sections were uniformly negative for cytoplasmic immunoglobulins. A reactive lymph node from another healthy gorilla was similarly stained, and a few mature plasma cells had cytoplasmic reactivity to the kappa and lambda light chains. Normal lymph node sections were used as negative controls, whereas subsections of specific primary antisera with normal nonimmune serum were used as negative controls.

Based on the light and electron microscopic appearance, the tumor was classified as a diffuse histiocytic lymphoma, using Rappaport's classification.⁷ The highly convoluted nuclei and the negative staining for immunoglobulin indicated that the tumor was of T-cell origin. Antibodies to human T-lymphotropic virus and reversal of the helper/suppressor T-cell ratio provided further evidence for a T-cell lymphoma.

Intensive care management of an infant lowland gorilla: Complications—Howard E. McClure, MD, Ronald P. Creggie, MD, Harrison Gardner, DVM, Melody Thompson, MS, H. Jobling McClung, MD, Wendy Kruse, MD, Denis King, MD, John Boice, DVM, and Charles Reiser, MD, Departments of Pediatrics, Surgery, Pathology, and Veterinary Clinical Sciences, and Veterinary Pathobiology, College of Medicine and Veterinary Medicine, The Ohio State University, Columbus, OH 43210

AN 11-DAY-OLD MALE lowland gorilla (*Gorilla gorilla gorilla*) was admitted to the animal facilities at The Children's Hospital Research Foundation because of lethargy, diarrhea, and dehydration. The infant gorilla was born at the Columbus Zoo in Ohio to a 16-year-old primigravid gorilla and was reared from the second day of life. The infant weighed 1.3 kg (normal birthweight = 1.6 kg). His vital signs were: rectal temperature = 36.9 C, respirations = 72 breaths/min, and heart rate = 146 beats/min. Physical examination revealed poor skin turgor, dry mucous membranes, lethargy, and abdominal distention. Serum CO₂ was 14 mmol/L and the bun was 25 mg/dl. Bacteriologic cultures were performed on blood, urine, and feces; bacteria were not isolated from the blood and urine, and *Salmonella* group E (species not identified) was isolated from the feces. To correct metabolic acidosis a postdiarrheal lactose intoler-

mal-to-man transmission. Casual, noninfectious, sexual contact does not present a serious risk of transmitting retrovirus infection.

1. Lee KY, Orlow AG, Dolanek EE et al. The electrocardiogram of the lowland gorilla (*Gorilla gorilla*). *J Zoo Anim Med* 1981;12:79-81.
2. DeWanther, BIS, Kopp M, Harnan J. *Gorilla (Gorilla gorilla)* antibodies in plasma. In: Rich MA, ed. *Diagnosis, Prevention, and Control of Diseases of Nonhuman Primates*. International Conference on RNA Virus Interactions in Humans, Cancer, June 18-19, 1984 in press.
3. Gold-Gen 0085 electron microscopy. New York, NY.
4. S. H. Gardner, LA, Hardy PR, Owens J. *Immunologic and antibody enzyme method of immunologic enzyme reaction and properties of soluble antigens and antibodies (Heteroantigen reactions and heteroantibody reactions) and its use in identification of antibodies.* *J Histotechnol* 1976;3:116-133.
5. Immunol. Copenhagen, Calif.
6. Rappaport H. Tumors of Hemipithecidae. In: *Handbook of tumor pathology*. Sec 2, Part 2. Immunologic and antibody enzyme method of immunologic enzyme reaction and properties of soluble antigens and antibodies (Heteroantigen reactions and heteroantibody reactions) and its use in identification of antibodies. *J Histotechnol* 1976;3:116-133.
7. Rappaport H, Galloway RK, Williams J. *Tumors of Hemipithecidae*. *J Histotechnol* 1976;3:116-133.
8. Homma Y, Kashi PJ, King NW, et al. Lymphoma in macaque association with serum of human T lymphotropic family virus type I. *J Natl Cancer Inst* 1981;71:111-118.
9. Gallo RC, Kohn W, Asanuma Y, Saragobhanan MG, et al. Association of human type C retrovirus with a subset of adult T-cell cancers. *Cancer Res* 1983;43:3892-3898.

ance characterized by profuse watery diarrhea, tachypnea, and lethargy. After rehydration and correction of metabolic acidosis, the infant gorilla was fed a soy-based carbohydrate-free formula⁸ for several days. Maintenance glucose was given iv. To allow recovery of his intestinal carbohydrate absorption, glucose was gradually to 6 g/dl over several days. When this concentration of monosaccharide was tolerated, increased amounts of a disaccharide (sucrose) were added to the formula and glucose was decreased to maintain a total carbohydrate concentration of 7 g/dl. The infant gorilla was placed eventually on a standard lactose-free soy formula.⁹ He was returned to the zoo at 31 days of age.

Sixteen days after being returned to the zoo, the gorilla again developed vomiting, diarrhea, and clinical signs of respiratory distress and dehydration. The gorilla was returned to the foundation animal facilities for evaluation and therapy. Physical findings on return admission included abdominal distention, tachypnea, and bleeding from all iv puncture sites. After iv administration of vitamin K₁ (3 mg), the bleeding stopped. *Klebsiella pneumoniae* was isolated bacteriologically from the blood and was sensitive only to amikacin sulfate.¹⁰

A teflon catheter¹¹ was inserted percutaneously into the external jugular vein and the gorilla was given supplemental parenteral nutrition (ie, glucose, crystalline amino acids,¹² and an iv fat emulsion). Concentration of the nutrition was increased gradually to a maximum of 16 g of glucose/day, 2.5 g of amino acids/kg/day, and 3 g of iv fat/kg/day. The solution also contained electrolytes, trace metals and minerals, and multiple vitamins. Oral feedings were limited to the soy-based carbohydrate-free formula,¹³ with low concentrations of glucose. Using this therapy, the gorilla slowly gained weight, but continued to pass green, foul-smelling, watery stools. A xylose absorption test¹⁴ value <5% confirmed the severity of malabsorption.

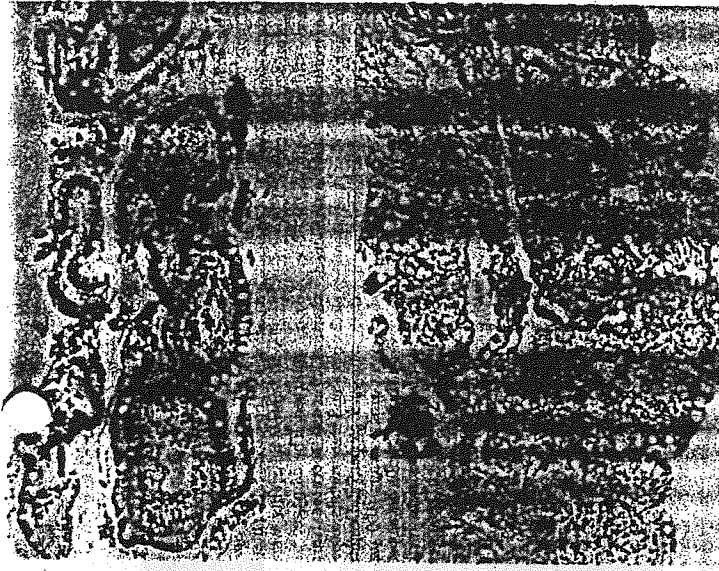


Fig 1.—Jejunal mucosal biopsy specimens from an infant lowland gorilla, H&E stain, X120. Upper: Biopsy specimen obtained at 6 months of age. The mucosal surface is flat with mild hyperplasia of the lamina propria present with some inflammatory cell infiltrate. Lower: Biopsy specimen obtained 6 months later. The mucosal surface is irregular with some dilatation of the crypts. The lamina propria still is hypercellular with some dilatation of the lymphatics.

When the gorilla was 6 months of age, a peroral jejunal mucosal specimen biopsy was collected (Fig 1, upper). The jejunal mucosal surface was flat with no recognizable villi. Disaccharidase activity in the biopsy specimen was absent. At that time, oral feedings were discontinued and total parenteral nutrition (TPN) was instituted. Three months later, a second small-bowel specimen biopsy (very superficial) was collected; microscopic examination of the specimen compared with the previous biopsy specimen indicated an improved epithelial surface and recognized villous structures (Fig 1, lower).

After several months of parental nutrition, the infant developed cholelithiasis and eczematoid plaques on his knees and elbows, his hair became thin and brittle and lost its normal color, his growth rate remained slow, he developed a perianal rash, and his diarrhea persisted. After increasing the iv dosage of zinc, copper, and histin to 500 µg/kg/day, 50 µg/kg/day, and 200 µg/kg/day, respectively, these findings resolved over several days.

During hospitalization, additional complications of TPN therapy developed, including hydrothorax secondary to a catheter perforation of the jugular vein and

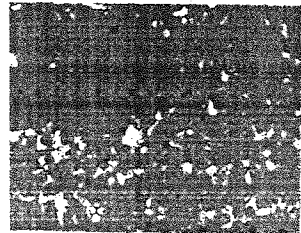


Fig 1.—Micrograph of the small intestine specimen from an orangutan with eosinophilic enteritis. Numerous eosinophilic cells (leucocytes with peroxidase granules) infiltrate the lamina propria, along with many lymphocytes and plasma cells. H&E stain; X 680.

orangutan or the present report. In man, eosinophilic gastroenteritis has been assumed to be an allergic or immunologic disorder,¹ however, uniformity of atopic findings or evidence of altered immunologic status usually is not found. To explain the eosinophilic infiltration of the bowel, several mechanisms have been postulated including immediate hypersensitivity to food allergens, Arthus-type immediate hypersensitivity involving the interaction of immune complexes and complement to attract eosinophils, and delayed cellular hypersensitivity involving release of eosinophil chemotactic factor by sensitized T lymphocytes. The pathophysiological features of the enteric eosinophilic infiltration in the orangutan of the present report could not be established.

In man, corticosteroids have been used successfully to treat eosinophilic gastroenteritis that is nonresponsive to elimination diets.² Because diet manipulation had not been successful in the treatment of the orangutan of the present report, the orangutan was given prednisone (50 mg orally, every 24 hours), followed by a decreasing dosage schedule as the children, peripheral eosinophils, orangutan improved. Prednisone therapy resulted in abatement of diarrhea, notable weight gain (6.7

liters and appetite. Total serum protein values (6.3 to 7.4 g/dl). The orangutan is being presently maintained on prednisone (2.5 mg orally every other day). The long-term prognosis for people with eosinophilic gastroenteritis is favorable, with proper therapy.³ Usually, recrudescence of clinical signs of gastroenteritis can be managed with a short course of corticosteroid therapy.

1. Saito A. Notes on the body weights of the orangutan. *Jap Zool Yearbook* 1969;28:283-284.
2. Lotman SL, Swartz Laboratories, Division of GD Sears & Co, Chicago, Ill.
3. Equivalents, MSD AVERT Inc, Summit, N.J.
4. Xyle-Pina, Adria Laboratories Inc, Dublin, Ohio.
5. The Human, JA, Cutler PM, Ragnard S, et al. The eosinophilic infiltration of the small intestine syndrome. *New Eng J Med* 1967;276:254-255.
6. Grossman KI. Fat concentration in feces. I. Determination of fecal fat. *Acta Med Scand* 1964;175:387-394.
7. Jones EM, Rubin GI. Eosinophilic gastroenteritis. *Case report*. *Am J Pathol* 1970;77:107-110.
8. Hendrick M. A spectrum of lymphocytic syndromes exemplified by six cases with eosinophilic enteritis. *Vir Pathol* 1981;138:198-200.
9. Cello JF. Eosinophilic gastroenteritis. *Am J Pathol* 1970;77:107-110.
10. Grossman KI, N. Gyrbekki JD. Allergic disorders of the intestine and eosinophilic gastroenteritis. In: *Gastrointestinal disease*. Philadelphia: WB Saunders Co, 1974; 1223.

E-cell lymphoma associated with immunologic evidence of retrovirus infection in a lowland gorilla

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YEAR-OLD female lowland gorilla which was captured in the Congo at age 3, developed purulent nasal discharge that did not respond to antibiotics dur-

ing the last few weeks of her third pregnancy. She gave birth on Jan 1, 1983, but the infant died 6 days later. The mother was anesthetized to remove the infant's body and to examine the continuous nasal discharge. Several ulcerated papules were seen on the soft palate. The gorilla had increasing

difficulty in swallowing, with drooling, inability to feed, and progressive weight loss. Three weeks after parturition, the gorilla was anesthetized and reexamined. A nasopharyngeal mass was biopsied and was microscopically identified as a lymphoma. Four weeks after partur-

for staging and therapy of her tumor, she weighed 72.3 kg, had an extensive nasopharyngeal mass, and had large, rubbery masses in the left anterior cervical and suprasternal areas. Examination of biopsies of the pharyngeal and cervical lesions indicated a large-cell, histiocytic lymphoma similar to that of the original biopsy. Bone marrow and inguinal lymph node biopsies were negative for tumor. Enlarged mediastinal nodes were not seen on thoracic radiographs. Hepatosplenomegaly was not found on physical examination of the gorilla or by computed tomography of the thorax and abdomen. Electrocardiographic and biochemical findings were normal for a gorilla. The CBC was normal, except for reduced numbers of lymphocytes (12% of a 200 cell differential). The animal developed profound hypokalemia, presumably due to inadequate replacement of electrolytes that were lost in the copious amount of saliva that the gorilla was producing. A gallium scan could not be interpreted because of retention of radioisotope in the gastrointestinal tract.

Initially, radiotherapy was used in an attempt to preserve the gorilla's reproductive capacity and because the tumor appeared to be confined to a group of regional lymph nodes. She was given all-purmal, corticosteroids, antibiotics, and IV potassium with each session of radiation therapy. The gorilla received a total dose of

2,000 rads. After 1 1/2 weeks and last therapy session gorilla's weight was 64.5 kg and the mass in the pharynx and neck were not clinically detectable. Four weeks after the last therapy session, she weighed 74.5 kg, was eating well, and was acting normally. The gorilla was isolated from the other 4 gorillas maintained at the Buffalo Zoo.

During her illness, serologic data indicated stable or declining antibody titers against Epstein-Barr virus and *Toxoplasma gondii*. Antibodies against hepatitis B virus, surface antigen, herpes simplex virus, and malaria were not detected. The gorilla had converted from seronegative to seropositive (1:32) for cytomegalovirus antibodies. She had antibody against human T-cell lymphotropic virus, type I (1:200) and Yaba virus (1:80); however, she had not been evaluated previously for these 2 viruses. Reversion of the helper/compressor T-cell ratio (0.8) was found, with a subnormal reduction in helper T cells that comprised 17% of the circulating lymphocytes. Reduction in tumor size after radiation therapy did not alter the lymphocyte ratios.

Eight weeks after the last therapy session she was not eating well again. Physical examination indicated recurrent masses in the neck and oropharynx and enlarged paraspinal lymph nodes and spleen. Evaluation of thoracic radiographs indicated enlarged hilar nodes and an enlarged peritracheal node. The tumor masses did

not respond to chemotherapy with vincristine, cyclophosphamide, prednisone, and doxorubicin. The gorilla's general condition deteriorated rapidly. Fourteen weeks after the last of the original chemotherapy sessions, the gorilla was euthanized.

Postmortem examination revealed extensive metastases of tumor in the para-aortic, mediastinal, cervical, and suprasternal nodes. The spleen contained metastatic nodules. Mucosa of the oral and nasal cavities had areas of ulceration and necrosis, with necrosis more pronounced in tissue from the palate. To avoid prolonged fixation in formalin, which would have an adverse effect on staining for immunoglobulins, tissues were processed the same evening for routine light microscopic and electron microscopic examination.

The tumor had a dense and diffuse infiltration of uniform cells with no evidence of nodular formation. Tumor cells had scant pink cytoplasm (hematoxylin and eosin stain) with indistinct cytoplasmic borders. The nuclei were hyperchromatic with minimal variations in size and shape. Most cells had distinctly convoluted nuclei (Fig 1).

With electron microscopy, the tumor cells had large and convoluted nuclei (Fig 2). Specialized cell junctions and basal lamina formation were not found. There were no cytoplasmic processes and the cytoplasm was devoid of organelles except for a few mitochondria

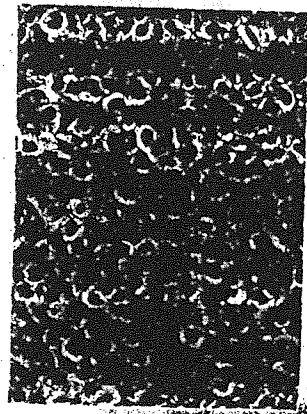


Fig 1.—Lymphoid-like cells with large nuclei, prominent indentations of the nuclear membranes, and variation in size and shape. X 230.



Fig 2.—Electron micrograph of a tumor cell, with a markedly convoluted nucleus, relative paucity of organelles, and lack of cytoplasmic processes. X 2,600.

On April 12, 1980, a female, second-generation (the parents of this orangutan also were born in captivity, making her a second-generation captive-born animal) hybrid orangutan (Pongo pygmaeus abelii x Pongo hybrid) was born at the National Zoological Park. The neonate was full term but weighed only 1.1 kg (normal birth weights are 1.5 to 2.5 kg). Due to maternal health problems, the infant was removed from her mother on Sept 9, 1980 and was sent to another zoo where she could be hand-raised with other orangutans of the same age group.

At about 2 years of age, the orangutan developed recurrent diarrhea with ten to gray stools that were semi-formed to soft and runny. Concurrent with the diarrhea were episodic abdominal distention, marked flatness, and a substantial weight gain. Treatments for various protozoal and metazoal enteric parasites, and treatment with an intestinal antimotility drug, did not control the diarrhea.

In May 1983, the orangutan began losing weight and became depressed periodically. Results of hematologic examination indicated a leukocytosis (26,700 wbc/ μ l) with a marked eosinophilia (27%) and hypoproteinaemia (4.1 gm/dl). A milk intolerance or food allergy was suspected and various diet manipulations were tried, however, the orangutan's condition did not improve.

The orangutan was returned to the National Zoological Park on Feb 3, 1984, weighing 11.5 kg (a low weight for a 3.5-year-old orangutan). Her behavior was subdued, almost to the point of lethargy. The defecation pattern of the orangutan was unusual and consistent feces were not passed for 24 to 72 hours, during which time the orangutan developed progressive abdominal distention, followed by passage of a voluminous semi-formed to soft and runny

stool. Protozoal or metazoal parasites were not found on examination of several fecal specimens. Oral administration of ivermectin¹ for the treatment of ivermectin-resistant nematode infestations was ineffective in controlling the diarrhea. Leukocytosis (14,100 wbc/ μ l) persisted, with a marked eosinophilia (20%) and hypoproteinaemia (6.2 gm/dl). Reversal of the normal granulocyte/lymphocyte ratio also was apparent (40:60 vs a normal ratio of 70:30).

Qualitative fecal analyses were conducted to screen for malabsorption and/or malabsorption, with the following results: direct Sudan III staining, negative; indirect Sudan III staining, positive; fecal starch, negative; x-ray film digestion for trypsin activity, positive; and absence of occult blood, mucus, and leukocytes. Results of large qualitative feces, concurrent with persistent hypoproteinaemia, indicated that the orangutan had gastrointestinal malabsorption.

To substantiate this finding and to quantitate the magnitude of the malabsorption, a D-xylose absorption test was performed to evaluate the efficiency of the orangutan's small intestinal absorption of monosaccharides. After the orangutan was fasted for 12 hours, the orangutan was sedated, urinary catheterization was performed, the orangutan's bladder was emptied of residual urine, and she was given an aqueous solution containing 26 gm of D-xylose, orally. Total urine volume was collected over a 5-hour period, the urine was assayed for total D-xylose content, and 2,067 mg of D-xylose was recovered. In adult humans, after ingestion of 25 gm of D-xylose, <5.0 g of D-xylose in a 5-hour urine collection is considered evidence of incomplete gastrointestinal absorption.² Results of this test indicated the presence of gastrointestinal malabsorption in

the orangutan of the present report; however, the amount of malabsorption could not be accurately evaluated due to the lack of normal values for orangutans.

To further evaluate the orangutan's gastrointestinal malabsorption, a 72-hour fecal fat analysis was performed. The orangutan was habituated to a diet containing 53 g of fat/day, her total fecal output was collected over a 72-hour period, and the feces were analyzed for total fat content. Results of total fat content analysis indicated that 33.4 g of fecal fat was passed daily. In healthy adult humans fed an ordinary diet containing 70 to 100 g of fat/day, the estimated fat excretion in feces should not exceed 5% of the total fat intake for a collection period of 3 days.³ Even without normal fecal fat excretion values for orangutans available, excretion of 63% of ingested fat in the orangutan of the present report was indicative of severe gastrointestinal malabsorption.

Results of a positive-contrast radiographic series of the upper and lower gastrointestinal tract did not indicate structural abnormalities or mucosal irregularities. Results of endoscopic evaluation of the upper and lower bowel did not indicate abnormalities of the mucosal surface. Biopsy specimens of the small intestine and colon were obtained endoscopically. Microscopic examination of these biopsy specimens indicated increased cellularity of the lamina propria and infiltration by numerous mature eosinophils. Some shortening and blunting of small intestinal villi also were seen (Fig 1). These histologic findings were consistent with a diagnosis of eosinophilic enterocolitis in the orangutan of the present report.

Enteric eosinophilic syndromes are well-documented in the dog,⁴ cat,⁵ and man.⁶ The disease process in the orangutan of the present report more closely resembled

ever, esophageal rupture has been described as the most rapidly fatal perforation of the gastrointestinal tract.⁷ Initially, clinical signs of esophageal perforation are minimal, but as air and food enter the mediastinum and pleural spaces and as acute inflammation and infection progress, dyspnea, cyanosis, sepsis with fever, hypotension, and cardiopulmonary collapse develop, followed by death.⁸

In man and small animals, immediate surgical repair is the treatment for esophageal perforation due to any cause, although some cases have been treated nonsurgically.⁹ The mortality rate in people with spontaneous esophageal rupture has been reduced (from 100% to about 30%) by earlier diagnosis, improved surgical techniques, and improved supportive measures.¹⁰

Acute gastric dilatation syndrome is a common disease in nonhuman primates that also must be considered as a possible cause. Gastric dilatation is rapidly fatal and can result in gastric rupture as a sequel to death.¹¹ However, gastric dilatation is differentiated from esophageal rupture by extensive abdominal distention, lack of frank vomiting.¹²

In 75% of people with spontaneous esophageal rupture (Boerhaave's syndrome), the rupture is accompanied by a history of vomiting, and in >80% of the cases, the rupture develops after the overindulgence of food and drink.¹³ In man, esophageal tears are longitudinal and occur along the left dorsal aspect of the esophagus within a few centimeters of the diaphragmatic hiatus,¹⁴ where an intrinsic weakness has been suggested.¹⁵ The esophageal tear in the baboon of the present report also occurred in this location, possibly because the baboon esophagus is anatomically and physiologically identical to that of man.¹⁶

Clinical signs indicative of esophageal rupture were not observed in the baboon. In man, however, spontaneous rupture of the esophagus is an experimental and clinical entity. Surg. Gynecol. Obstet. 1982; 83:73-86. FC, Gilson RM, Vealier PA, et al. Muscular function and structure of the esophagus of the baboon (Papio anubis). Am J Vet Res 1978;39:1200-1211.

1. High Protein Monkey Chow, Rabbits Purina, St. Louis, Mo.
2. Hines JG, Mettenleiter VC. Esophageal perforation. In: Textbook of Equine Internal Medicine, 2nd ed. Ed. by Ross GW, Moore JN. St. Louis: CV Mosby Co, 1982; 367-372.

3. Pond GL, Newman CE, Arver ME. Acute gastric dilatation in nonhuman primates: review and case studies. Vet Med (Small Clin) 1982;77:531-533.

4. Anderson DC. Chronic laboratory colitis. In: Textbook of Equine Internal Medicine, 2nd ed. Ed. by Ross GW, Moore JN. St. Louis: CV Mosby Co, 1982; 373-378.

5. Landay AL, Berk RN, Boerhaave syndrome. Am J Gastroenterol 1978;88:212-219.

6. Meekler SA. Spontaneous rupture of the esophagus: an experimental and clinical study. Surg. Gynecol. Obstet. 1982; 83:73-86.

7. Hines JG, Mettenleiter VC. Esophageal perforation. In: Textbook of Equine Internal Medicine, 2nd ed. Ed. by Ross GW, Moore JN. St. Louis: CV Mosby Co, 1982; 367-372.

8. Hines JG, Mettenleiter VC. Esophageal perforation. In: Textbook of Equine Internal Medicine, 2nd ed. Ed. by Ross GW, Moore JN. St. Louis: CV Mosby Co, 1982; 367-372.

9. Hines JG, Mettenleiter VC. Esophageal perforation. In: Textbook of Equine Internal Medicine, 2nd ed. Ed. by Ross GW, Moore JN. St. Louis: CV Mosby Co, 1982; 367-372.

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5. B. B. B. Solution, Purdue Frederick, N. M., Conn. P.

6. Mallon RP. Radiology in veterinary orthopedics. Philadelphia: Lea & Febiger, 1972:33-112.

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One morning, the baboon vomited nondigested food. The next morning, the animal was found dead. The carcass was re-

frigerated until the following morning, when it was necropsied. Several other baboons housed in the same area and maintained on the same diet did not have clinical signs of illness.

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Esophageal rupture in a baboon

—William S. Stokes, DVM, Viola P. Brooks, MD, and Charles W. Smith, BS, Departments of Clinical Investigations and Pathology, Tripler Army Medical Center, Honolulu, HI 96869-6000, and Cardiovascular Research Laboratory, The Queen's Medical Center, Honolulu, HI 96813

A 4-YEAR-OLD, 11-kg, domestic-born female olive baboon (*Papio anubis*) was caged individually in a screened and covered 6th floor outdoor vivarium, maintained on commercial primate food, and provided water ad libitum for one year. The baboon did not have a history of clinical illness or experimental use.

One morning, the baboon vomited nondigested food. The next morning, the animal was found dead. The carcass was re-

frigerated until the following morning, when it was necropsied. Several other baboons housed in the same area and maintained on the same diet did not have clinical signs of illness.

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intruterine fetal demise can result in disseminated intravascular coagulation in man,¹ and non-human primates.² Clinical evidence of disseminated intravascular coagulation was not found in the macaque of the present report.

Clinical signs and physical findings of late gestational hypovolemic shock and anemia, and ultrasonic and radiographic evidence of fetal demise, were consistent with findings in people with abruptio placentae.³ Clinical management of the macaque consisted of whole blood transfusion, fluid therapy, and delivery of the fetus by hysterotomy. Abruptio placentae has been reported in nonhuman primate placentas,⁴⁻⁶ but clinical course of the disease has been reported infrequently.⁷

The abruptio placentae in the macaque of the present report was clinically similar to that of the disease in man.

1. Veeger, Parke-Davis and Co, Morris Plains, NJ.

2. Fenness NR, ed. Physiological data summary for macaca silenus (CSP/M). Tailed macaque. In: *Normal physiological data*. Apple Valley, Minn: ISRS, 1982:162.

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Swabs were made of the draining material from the skin lesions and the swab-specimen was cultured bacteriologically; *Staphylococcus aureus* and *S. epidermidis* were isolated. Benzathine penicillin G and procaine penicillin G (1.5×10^6 units each) were given on alternate days. The macaque was anesthetized, using ketamine hydrochloride⁸ (150 mg IM), and the draining lesions were explored; fistulous tracts were found that extended from the skin openings to the femur.

The specimen of osteomyelitis and osteomyelitis are the subject of this report and are to be considered as they relate to the value of the Department of the Army in the Department of Pathology.

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Periosteal reaction consistent with osteomyelitis in a stump-tailed macaque

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LABORATORY-MAINTAINED, adult male stump-tailed macaque (*Macaca arctoides*) had 2 chronic, draining skin lesions located over the lateroproximal and caudodorsal femoral areas of the hindlimb. The lesions were group-boused, routinely castrated, and had not given experimental treatment. She had a history of previous bite wounds on the fingers and

hindlimbs and periodic weakness in the hindlimbs. Other abnormalities were not found on physical examination. The hemogram and serum biochemical values were evaluated. The hemogram indicated a wbc count of $6,900/\text{mm}^3$ (comprised of 1% bands, 60% segmented neutrophils, 20% lymphocytes, 11% monocytes [monocytosis]), PCV of 32%, a RBC count of 3.46×10^6 , and a hemoglobin concentration of 9.7 g/dl. Serum biochemical findings were normal.

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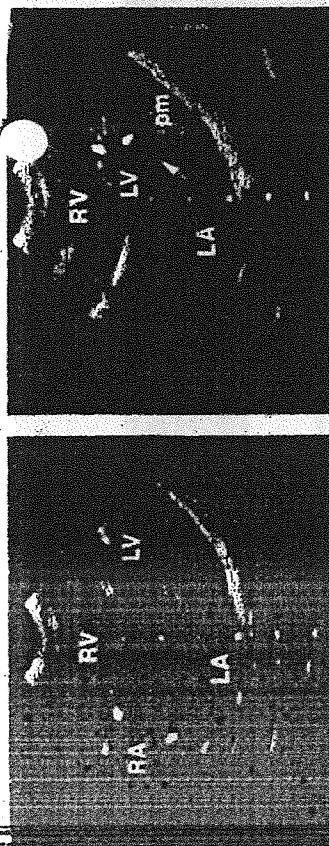


Fig 1 Top.—Echocardiogram (right intercostal, long-axis view of the heart) indicating a free-floating, large right atrial thrombus in the monkey. A circular soft-tissue mass (arrows), 1 cm in diameter, is located within the right atrial lumen on the opening of the tricuspid valve (ball-valve thrombus). Near-field artifact obscures the right ventricle and a portion of the interventricular septum. RA = right atrium; RV = right ventricle; LV = left ventricle; LA = left atrium.



Fig 2 Top.—Echocardiogram (right intercostal, long-axis view of the heart) indicating a left ventricular mural thrombus in a weavily monkey. A large soft-tissue mass (small arrows) is located in the apex of the left ventricle and is attached firmly to the left ventricular wall. A smaller soft-tissue mass (long arrow) is attached to the chordae tendineae of the mitral valve. RV = right ventricle; LA = left atrium; LV = left ventricle; PM = papillary muscle.



Bottom.—Gross necropsy photographs of the mural thrombus attached to the apex of the left ventricle.

thrombi were found in the right atrium and left ventricle on days 1 and 18 of hospitalization. At necropsy (26 days after initial examination) all cardiac chambers contained thrombi, indicating disseminated failure in the prevention of thrombus formation. Because microscopy is not a reliable method for assessing the age of a thrombus,¹⁸ the temporal relationships among the various thrombi could not be determined.

1. Welton, JG. *Essentials of Pathology*. Philadelphia: WB Saunders Co, 1963.
2. Bill-Labatt SG. Ames Division, Miles Lab Inc, Elkhart, Ind.
3. Jones FC. *Diagnostic Cardiology: A Practical Approach*. Philadelphia: WB Saunders Co, 1966.
4. Representative, Boehringer Ingelheim Lab., Ridgefield, Conn.
5. Lactated Ringers solution, Becton Dickinson, Sparks, Md.
6. Lactated Ringers solution, Hoechst Roussel Pharmaceuticals, Somerville, NJ.
7. Robbins CT. *Wildlife feeding and management*. New York: Academic Press Inc, 1980.
8. Liquid Protein, Golden Harvest, Piquette, Pa.
9. Flunoxone plus Iron, Mile Labs Inc, Elkhart, Ind.
10. Foster JY, Chamber JK. *Pharmacology of Domestic Animals*. Philadelphia: WB Saunders Co, 1982.
11. Albert JS, Braunwald E. *Pathology of the Heart*. Philadelphia: WB Saunders Co, 1980.

Abruptio placentae in a lion-tailed macaque

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A 12-YEAR-OLD, multiparous female lion-tailed macaque (*Macaca silenus*), weighing 7.3 kg and aged 18 months, developed staxia, weakness, and pale mucous membranes; the evening before she appeared clinically healthy. Her obstetrical history included 2 spontaneous abortions and 4 normal vaginal deliveries. The cause of the first abortion was not determined and the second abortion was due to extensive bacterial endometritis and deciduitis.

Previous medical problems included multiple bite wounds and enteric amoebic infections. After arrival at the San Diego Zoo veterinary hospital, the macaque was sedated for examination, using ketamine HCl (3.5 mg/kg of body weight). Results of physical examination indicated hypothermia (32.7 C), mucous membrane pallor, and a palpable near full-term fetus. Due to profound hypotension, a venous cut-down was performed and a catheter was inserted into the left saphenous vein. Supplemental heat was provided with a circulating water heating pad and oxygen was administered via a face mask. Initial hematologic evaluation indicated a normocytic hypochromic anemia (pcv = 20%,

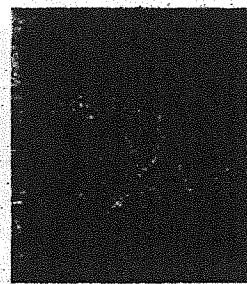


Fig 1.—Lateral radiograph of the abdomen of a lion-tailed macaque, indicating overtop of fetal skull bones (arrow), excessive extension of the fetal spine, and abnormal articulation of the appendicular skeleton, which are indications of intrauterine fetal demise.

hemoglobin = 6.4 g/dl), hypoproteinemia (total protein = 4.8 g/dl), and hypoglycemia (60 mg/dl). Total and differential white counts and serum biochemical, electrolyte, and enzyme values were normal.

A continuous infusion of 5% dextrose in lactated Ringers solution* (total infusion = 600 ml) was given, in addition to a bolus IV injection of 50% dextrose (1.5 ml) and carbenicillin (100 mg). A supplemental dose of ketamine HCl (3.5 mg/kg) was administered IM and IV boluses of 1 to 2 mg of diazepam were given to maintain sedation. Major and minor blood-type cross matches were performed, using the blood of a nonrelated lion-tailed macaque (donor). The sick macaque was given a transfusion (40 ml) of the donor's whole blood in dextrose, sodium citrate, and citric acid.

Ultrasonographic examination of the abdomen did not indicate a fetal heartbeat or fetal movement. Radiographic examination of the skull bones (Fig 1) (an indication of intrauterine fetal demise in people¹⁹ and dogs²⁰).

The macaque was intubated and with 200 mg of carbenicillin. The uterine incision was closed in 2 continuous inverting layers, the abdomen was closed routinely in layers, and the skin was apposed,

that was attached loosely in the area of the right atrium. A 2.6 x 2 x 1.5-cm thrombus was molded to the contour of the left atrium, but was not attached. The right ventricle contained a 0.7 x 0.5 x 0.4-cm thrombus and multiple, smaller thrombi. A 1.3 x 1.1 x 1-cm mural thrombus was attached near the apex of the left ventricle.

Microscopically, the atrial thrombi had laminated layers of fibrin interspersed with foci of hemorrhage, and entrapped granular positive cocci peripherally. Similar gram-positive cocci were found in vessels of the heart, lungs, kidneys, liver, pancreas, adrenal and brain. The kidneys had a chronic, diffuse severe interstitial nephritis, with multiple foci of glomerulosclerosis.

Bacteriologic culture of heart Using ultrasonography,

not indicate a change in the size, shape, or position of the right atrial and left ventricular intracardiac masses. Additional masses were not seen. On day 25 of hospitalization, the monkey improved clinically, spending most of the day resting, with short periods of activity (feeding, grooming, and vocalizing); the monkey was discharged from the hospital and sent home with the owner who was instructed to continue treatment. The following day, the monkey fell from a platform in her and died.

Necropsy, gross findings included the cardiovascular system and kidneys. Thrombi were found generally in the atria and ventricles (Fig 1 and 2). The right atrium contained a large, 2 x 1.6 x 1.3 cm, free-floating thrombus; and a smaller, 1.4 x 1 x 0.7-cm thrombus

The culture present address is Chagres Memorial Zoo, P.O. Box 184, Colorado Springs, CO 80902.

Cat death associated with Toxoplasma gondii in ring-tailed lemurs

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4) Fever, *T. gondii* were seen in these organs than in the liver. Serum samples were collected from the remaining lemurs (5 and 6) three weeks after the death of the fourth lemur. The serum samples were examined for antibodies to *T. gondii*, using the Sabin-Feldman dye test. Antibodies were not found in the noninfected sera of the lemurs. At the same time serum samples were collected from the lemurs, fecal specimens were collected from the lemurs and were arranged toward the periphery of the room. The same person attended to all animals in the room.

Four of 8 ring-tailed lemurs (5 to 8 years old) died within 2 months of one another. Lemur 1 was listed as on the day of death. The other 3 lemurs (2, 3, and 4) died after a 1- to 2-days illness; depression was the main clinical sign observed. In lemurs 2, the SUN was 110 mg/dl, creatinine was 3.9 mg/dl, and bilirubin was 10.6 mg/dl; in lemur 4 the SUN was 60 mg/dl and bilirubin was 4.1 mg/dl. All 4 lemurs were necropsied within hours of death or their carcasses were refrigerated until necropsy the next day. Macroscopic lesions were seen in mesenteric lymph nodes, liver, and spleen of the 4 lemurs. Mesenteric lymph nodes were pale, enlarged, and hemorrhagic. Livers were pale and had pinpoint whitish areas in most of the hepatic parenchyma. Spleens were dark and had pinpoint whitish areas throughout the spleen. Microscopically, extensive necrosis was found in the mesenteric lymph nodes, liver (Fig 1), and spleens of all 4 lemurs. Numerous and intracellular tachyzoites of *Toxoplasma gondii* were seen in all 3 organs. Focal, small areas of necrosis and mononuclear infiltrations were seen in the intestinal submucosa and Peyer's patches (lemurs 1, 2, and 3), heart (lemurs 1, 2, and 3), and skeletal muscle (lemur

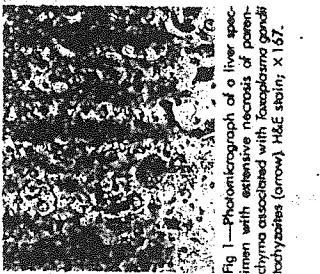


Fig 1—Photomicrograph of a liver specimen with extensive necrosis of paracystic chyma associated with *Toxoplasma gondii* tachyzoites (arrows). H&E stain; X 167.

lected from the 20 cats that were housed in cages next to the lemurs. The fecal samples were negative for *T. gondii* oocysts, microscopically and by bioassays in mice.¹ Necrosis associated with *T. gondii* in mesenteric lymph nodes and intestines indicated that the lemurs may have become infected due to the ingestion of *T. gondii* oocysts or tissue cysts.¹ After ingestion of *T. gondii* oocysts or tissue cysts, *T. gondii* multiplies in intestine and associated lymph nodes.¹ Highly susceptible hosts such as New World monkeys can die peracutely of toxoplasmosis even before lesions develop in other organs. Oocysts were probably the source of toxoplasmosis because meat had not been fed to the lemurs. Oocysts were probably excreted by cats housed next to the

lemurs. Raw meat was fed routinely to the cats (horse meat 5 days a week and beef livers once a week). *Toxoplasma gondii* has been found in meat of naturally and experimentally infected horses and in livers of experimentally inoculated cattle.² *Toxoplasma gondii* oocysts have been found in the feces of several of the species of cats that were housed next to the 4 lemurs that died. Not finding *T. gondii* oocysts in the feces of the 20 cats housed next to the lemurs does not preclude them as source of *T. gondii* infection, because oocysts are excreted only for about 1 week after ingestion of *T. gondii* infected meat.

That the surviving 2 lemurs remained serologically negative to *T. gondii* indicated that the source of infection was sporadic and that all infected lemurs died of toxoplasmosis.

In 2 previously reported outbreaks of toxoplasmosis in monkeys in 2008,^{3,4} epidemiologic evidence traced the source of infection to ingestion of undercooked meat. In the present report, infection may have been acquired from *T. gondii* oocysts excreted by cats in the zoo. Fecal matter containing oocysts might have contaminated the lemurs' food in the adjacent cage when feline cages were cleaned. The 65 primates (20 bonobos, 20 Japanese snow monkeys, and 15 gorillas) housed in other areas of the zoo away from the cats did not become ill at any time.

Experimental studies and reports of fatal toxoplasmosis have indicated that New World monkeys are highly susceptible, whereas Old World monkeys are resistant to toxoplasmosis.^{5,6} Naturally occurring fatal toxoplasmosis has been diagnosed in lemurs.^{3,4}

For the prevention of toxoplasmosis in susceptible zoo ani-

mals, all meat could be cooked for 66 C for 30 minutes, especially before feeding it to felines because a single cat can excrete millions of *T. gondii* oocysts, and because oocysts can survive in soil for several months.⁷ Additionally, it would be prudent to maintain a reasonable distance between primate caretakers and cats and to train caretakers on techniques that will minimize cage-to-cage contamination.

1. Dubey JP, *Toxoplasma*, Hammond, IL: Saunders, 2003; 100-101.
2. Dubey JP, *Toxoplasma gondii* in man and other warm-blooded animals. In: *Handbook of zoonoses*, ed. by Dubey JP, 2nd ed. New York: Academic Press, 1977; 101-107.

3. Miller NL, Free Dubey JP. Ovid infections with *Toxoplasma gondii* in cats and in the birds. *J Parasitol* 1972;68:928-937.
4. Al-Khalidi NW, Dubey JP, Provalence of *Toxoplasma gondii* infection in horses. *J Parasitol* 1979;65:331-334.
5. Dubey JP. Persistence of encysted *Toxoplasma gondii* in tissues of equids fed to humans. *Am J Vet Res* 1986;46:1753-1754.
6. Dubey JP. Distribution of cysts and tachyzoites in calves and pregnant cows. *Am J Vet Res* 1988;49:241-244.
7. Jaiswal RK, Wernke H, Unterwiesingh R, et al. *Toxoplasma gondii* in the Wistar-Kyoto rat. *Parasitology* 1983;87:109-111.
8. Jaiswal RK, Wernke H, Unterwiesingh R, et al. *Toxoplasma gondii* in the Wistar-Kyoto rat. *Parasitology* 1983;87:109-111.
9. Frenkel MJ, Frenkel JK, Johnson KM, et al. Development of *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1965;19:247-248.
10. McKelvey CH, Reddy HS, Kocoshner S. *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1972;6:247-254.
11. Ullenberg G, Riboh JJ, Nete sur in *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1965;19:247-248.
12. McKelvey CH, Reddy HS, Kocoshner S. *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1972;6:247-254.
13. Ullenberg G, Riboh JJ, Nete sur in *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1965;19:247-248.
14. Berk GH. *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1964;15:50-52.

15. Miller NL, Free Dubey JP. Ovid infections with *Toxoplasma gondii* in cats and in the birds. *J Parasitol* 1972;68:928-937.
16. Al-Khalidi NW, Dubey JP, Provalence of *Toxoplasma gondii* infection in horses. *J Parasitol* 1979;65:331-334.
17. Dubey JP. Persistence of encysted *Toxoplasma gondii* in tissues of equids fed to humans. *Am J Vet Res* 1986;46:1753-1754.
18. Dubey JP. Distribution of cysts and tachyzoites in calves and pregnant cows. *Am J Vet Res* 1988;49:241-244.
19. Jaiswal RK, Wernke H, Unterwiesingh R, et al. *Toxoplasma gondii* in the Wistar-Kyoto rat. *Parasitology* 1983;87:109-111.
20. Jaiswal RK, Wernke H, Unterwiesingh R, et al. *Toxoplasma gondii* in the Wistar-Kyoto rat. *Parasitology* 1983;87:109-111.
21. Frenkel MJ, Frenkel JK, Johnson KM, et al. Development of *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1965;19:247-248.
22. McKelvey CH, Reddy HS, Kocoshner S. *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1972;6:247-254.
23. Ullenberg G, Riboh JJ, Nete sur in *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1965;19:247-248.
24. McKelvey CH, Reddy HS, Kocoshner S. *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1972;6:247-254.
25. Ullenberg G, Riboh JJ, Nete sur in *Toxoplasma gondii* in the rat. *Am J Trop Med Hyg* 1965;19:247-248.

Echocardiographic diagnosis of intracardiac thrombi in a woolly monkey

L.L. Allen, DVM, D. A. Leger, DVM, A. J. Cooley, DVM, B. R. Collins, DVM, and F. S. Pipers, DVM, PhD, College of Veterinary Medicine, University of Florida, Gainesville, FL 32610

A CAPTIVE-BORN, 8-year-old, 5-kg female woolly monkey (*Lagothrix lagotricha*) had been housed with a 12-year-old male of the same species. Both monkeys were fed fruit, vegetables, assorted grains, and vitamin-mineral supplements. The female began to have a progressively decreased appetite and increasing weakness. Neither monkey had a previous history of medical problems.

After 3 weeks, the female monkey was weak, thin and depressed. Physical examination at the Veterinary Medical Teaching Hospital, University of Florida, indicated poor body musculature, a prominent right jugular pulse, tachycardia (200 beats/min), gallop rhythm, marked dehydration (10%), and moderate abdominal distention. Ballottement of the abdomen indicated moderate fluid accumulation. The distal extremities were edematous. A CBC indicated an increased PCV (65%) and hypoproteinemias (5.2 g/dl). Serum biochemical findings included hypokalemia (2.5 mEq/L) and hyponatremia (132 mEq/L) and increased concentration of BUN (125

mg/dl), aspartate transaminase (208 U/l), and alanine transaminase (86 U/l). Serum creatinine was 2.0 mg/dl and albumin was 2.9 g/dl. Urine protein was 4+, using a dipstick,¹ and sp gr was 1.009 g/ml (fixed sp gr associated with clinical dehydration). The thorax appeared radiographically normal. Echocardiographic examination of the heart was performed. The M-mode and two-dimensional evaluations indicated poor cardiac contractility. The two-dimensional evaluation also indicated a large, round, free-floating, soft-tissue mass occupying the majority of the right atrial lumen (Fig 1, top). During cardiac contraction, the mass acted as a ball-valve at the tricuspid annulus. In addition, a large, attached, soft-tissue mass filled the apex of the left ventricle (Fig 2, top). Within the abdomen, a large volume of hypoechoic paritoneal fluid was seen. The kidneys were irregular and had a thickened cortex. On the basis of clinical, echocardiographic, hematologic, and biochemical findings, a diagnosis of cardiac failure compli-

ated by multiple intracardiac masses and chronic renal failure was made. The intracardiac masses were thought to represent thrombi due to their echocardiographic appearance and multicentric location.

The monkey was given fluids (lactated Ringer's solution, 750 ml over 24 hours) to correct the volume depletion and electrolyte abnormalities; aspirin (1 to 3 mg/kg of body weight/day, orally) and dipyridamole² (1 to 2 mg/kg divided 3 times a day, orally) as antiplatelet drugs to prevent further thrombi formation; milrinone³ (1 mg/kg every 12 hours, orally) to improve cardiac contractility and efficiency; and furosemide⁴ (0.6 mg/kg every 12 hours, orally) to reduce dependent edema and ascites. Daily protein requirement (1.2 g/kg) and caloric needs (70 kcal/kg)⁵ were met by feeding a commercial liquid protein product⁶ and a variety of fruits and vegetables. Daily vitamin and mineral supplements⁷ were given. After 13 days of hospitalization, a two-dimensional ultrasono-

MEXICO



ZOOLOGICO DE CHAPULTEPEC

Nombre: "BANTO"
 Cuna: COPIAS
 EXPEDIENTE _____
 HOJA # _____
 PESO _____

FECHA

2-II-72

H O R A S	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5	6	7	TOTAL	T. 24 HR.
	Temperatura																									
F.C.																										
F.R.																										
T.A.																										
P.A. bd/. Cef.																										
INGRESOS																										
V. Oral																										
V. Parenteral																										
Medicamentos																										
MEDICAMENTOS																										
V. PARENTERAL																										
TOTAL POR TURNO																										
EGRESOS																										
Orina																										
Evacuación																										
Succión																										
Vómito																										
Residuo																										
P.I.																										
Muestras																										
BALANCE PARCIAL DE 8 HRS.																										

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12503

12503

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400

81.15

81.15

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160

160

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98.3

Firma Médico

HOSPITAL METROPOLITANO DE ANÁLISIS CLÍNICOS S. DE C. V.

Laboratorio de Análisis Clínicos
Tlacotalpan 51 06760 Col. Roma Sur México D.F.

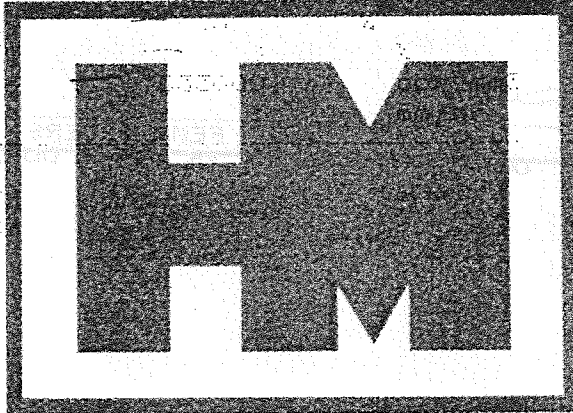
Jefe de Laboratorio : G. F. B. Ma. DOLORES HUERTA ARIAS.

Tels. : Director: 5-84-55-37 Cona.: 5-74-62-33 Ext. : 113 y 267

Paciente : GORILA MACHO BANTU
Dr. A QUIEN CORRESPONDA

Folio : 00 / 826 del 09/06/94
Reg. : 788 Hora: 21:37
Fecha : 09-06-1994 Pag. 1
PARTICULAR

EXAMEN	RESULTADO	VALORES DE REFERENCIA
BIOMETRIA HEMATICA		
LEUCOCITOS	9.51/4.1 ↑ 11.5×10^9 mm ³	4000 - 11000
ERITROCITOS	5.60 MILLONES /mm ³	4.7 - 5.1
HEMOGLOBINA	14.5 g/dl	14 - 18
HEMATOCRITO	45.0 %	42 - 52
V.S.M.	60.4 Micras	97 - 103
H.H.G.	34.0 g/dl	30 - 37
PLACAS	57 %	43 - 75
BANDAS	0 %	0 - 7
EOSINOFILOS	0 %	0 - 4
BASOFILOS	0 %	0 - 1
LINFOCITOS	0 %	21 - 52
MONOCITOS	0 %	0 - 10
PLAQUETAS	130000	130000 - 400000
SEDIMENTACION GLOBULAR	0	0 - 10



Sedacion con ketamina
Pavel Marejo (Leucocitos
sin bsv. a bircy.)

[Signature]
ATENTAMENTE
G. F. B. Ma. DOLORES HUERTA A.

GRACIAS POR SU PREFERENCIA
TESILAB (N.R.)

(* Resultado fuera de rangos normales)

GRUPO



REL NO.

SAMPLE ANALYSIS

06/09/94 788

ID

LAB

WBC 15.5 H

LY 18.0 L

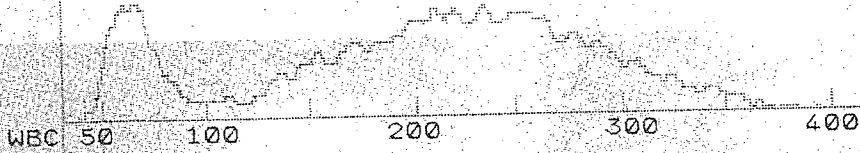
MO

GR

EO #

BA #

SUSPECT: EOS IMM GRANS
ATYP LYMPHS BLASTS



MICRO HYPO

RBC 5.60

HGB 14.3

HCT 45.1

MCV 80.5

MCH 25.5 L

MCHC 31.7 L

RDW 14.9

RBC 50 100 200 300
 NO SAMPLE BUFFERS REMAINING, SAMPLE NOT STORED
 NORMAL DISTRIBUTION

PLT 355

MPV 9.9

PLT 2 10 20 FEMTOLITERS

NEXT ID

OF CODES XB N= 4 OFF

XB LIMIT OUT PRINT ERROR

ZOOLOGICO DE CHAPULTEPEC - SERVICIO MEDICO VETERINARIO

FECHA: 9/6/94

M.V.Z. Gwl / SMC

Identificación del Animal:

Nombre Común: Gonla "Bautu"

Nombre Científico: Gonla gonla

Sexo: 1-0 Edad: _____ Marcaje: _____

Albergue: _____ Peso Calc: 15 kg. Real: 19.5

Drogas Utilizadas:

Esta dosis permitio el manejo del animal para el traslado a el albergue.

Tiempo:	Droga:	Dosificación	Vía — Medio:
00:00	<u>Ketamina</u>	<u>5 mg/kg 100 mg</u> <u>1 ml</u>	<u>IM -</u>
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-

Bitacora del Procedimiento:

Tiempo:	FC	FR	Temp	Observaciones:
00.00	_____	_____	_____	_____
<u>14:23</u>	_____	_____	_____	<u>Se aplico 100mg,</u>
<u>14:26</u>	_____	_____	_____	<u>Se encuentra un poco</u>
_____	_____	_____	_____	<u>sedado</u>
<u>14:32</u>	_____	_____	_____	<u>Se saca de su albergue</u>
<u>14:42</u>	_____	_____	_____	<u>Okato, Tetanol</u>
_____	_____	_____	_____	<u>Iunpa</u>
_____	_____	_____	_____	<u>Tuberculina</u>
<u>14:50</u>	_____	_____	_____	<u>Intenta levantarse</u>
<u>15:00</u>	_____	_____	_____	<u>Se mantiene sedado.</u>
<u>15:05</u>	_____	_____	_____	<u>Se incorpora</u>
<u>15:21</u>	_____	_____	_____	<u>SE SUBE A LA TORRETA</u>
_____	_____	_____	_____	<u>PROCIENDO MUCHO RUIDO</u>

84
- 68.5 (Oscor)
~~18~~ 19.5



**LABORATORIO CLINICO DEL
ZOOLOGICO DE CHAPULTEPEC**

NOMBRE COMUN: GORILA
NOMBRE CIENTIFICO: GORILLA GORILLA
SEXO: 1.0

FECHA: 21-03-95

EDAD: 3.5 AÑOS

IDENTIFICACION DEL ANIMAL "BANTU"

EXAMEN/FECHA	RESULTADO	VALORES DE REFERENCIA
--------------	-----------	-----------------------

COPROPARASITOSCOPICO

21-03-95 Se observó trofozoitos de Balantidium coli +

24-03-95 Se observó trofozoitos de Balantidium coli (8 formas inmóviles de 2 preparaciones)

25-03-95 Se observó trofozoito de Balantidium coli inmóvil

26-03-95 Negativo

27-03-95 Negativo

28-03-95 Negativo

29-03-95 Negativo

30-03-95 Negativo

31-03-95 Se observó trofozoitos de Balantidium coli (3 por preparación, formas inmóviles)

01-04-95 Se observó trofozoitos de B. coli (20 por preparación).

OBSERVACIONES

ATENTAMENTE
Q.F.B. MATILDE RODRIGUEZ CORDOVA.



**LABORATORIO CLINICO DEL
ZOOLOGICO DE CHAPULTEPEC**

NOMBRE COMUN: Gorila
NOMBRE CIENTIFICO: Gorilla gorilla
SEXO: MACHO

FECHA: 03-04-95
EDAD: 3.5 AÑOS

IDENTIFICACION DEL ANIMAL "BANTU"

EXAMEN/FECHA	RESULTADO	VALORES DE REFERENCIA
--------------	-----------	-----------------------

COPROPARASITOSCOPICO

02-04-95	Se observó 1 trofozoito de <u>B. coli</u> por preparación inmóvil	
03-04-95	Se observó 5 formas móviles de <u>B. coli</u>	
04-04-95	Se observó 8 forma inmóviles de <u>B. coli</u>	
05-04-95	Se observó 2 formas +/- móviles de <u>B. coli</u> por preparación	
07-04-95	Negativo	
08-04-95	Negativo	
09-04-95	Negativo	
10-04-95	Negativo	
11-04-95	Negativo	
12-04-95	Negativo	
13-04-95	Negativo	
14-04-95	Trofozoitos de <u>B. coli</u> 25 p/prep. móviles	
15-04-95	Trofozoitos de <u>B. coli</u> 25 p/prep. ↓ movilidad.	
16-04-95	Trofozoitos de <u>B. coli</u> 13 p/prep. +/- móviles	
18-04-95	Trofozoitos de <u>B. coli</u> 8 p/prep. poco móviles	
19-04-95	Trofozoitos de <u>B. coli</u> 3 p/campo	
20-04-95	Trofozoitos de <u>B. coli</u> 3 p/campo	
21-04-95	Trofozoitos de <u>B. coli</u> 2 p/campo +/- móviles	
22-04-95	Trofozoitos de <u>B. coli</u> 21 p/prep. inmóviles	
23-04-95	Trofozoito de <u>B. coli</u> 1 p/prep. +/- móvil.	
24-04-95	Negativo	
25-04-95	<u>B. coli</u> 30 p/prep.	
26-04-95	Negativo	
28-04-95	Negativo	
29-04-95	Negativo	
OBSERVACIONES	5 p/prep. de <u>B. coli</u>	

ATENTAMENTE
Q.F.B. MATILDE RODRIGUEZ CORDOVA.

HOSPITAL METROPOLITANO S.A. DE C.V.
 Laboratorio de Análisis Clínicos
 Tlacotalpan 51 06760 Col. Roma Sur México D.F.
 Jefe de Laboratorio : Q. F.B. Ma. DOLORES HUERTA ARIAS.
 Tels. : Directo: 5-84-55-37 Conn.: 5-74-62-33 Ext. : 113 y 267

Paciente : GORILA BANTU 1.0
 Dr. FERNANDO GUAL

Folio : CZ / 377 del 08/04/95
 Reg. : 9221 Hora: 15:55
 Fecha : 13-04-1995 Pag. 1
 PARTICULAR

EXAMEN	RESULTADO	VALORES DE REFERENCIA
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CULTIVO
 ESTUDIO BACTERIOLOGICO
 CULTIVO

COPROCULTIVO
 Salmonella Arizona
 Serologia para salmonella : POSITIVO

ANTIBIOGRAMA

AC. NALIDIXICO	AMIKACINA	AMPICILINA
	S	R
CEFOTAXIMA	CEFTAZIDINA	CEFTRIAXONA
R		S
CIPROFLOXACINA	CLINDAMICINA	CLORANFENICOL
S		S
GENTAMICINA	IMIPENEM	NETILMICINA
R	S	S
NITROFURANTOINA	NORFLOXACINA	PENICILINA
	S	
PIPERACILINA	RIFAMICINA	S X T
		S
		VANCOMINICA

GRACIAS POR SU PREFERENCIA
 TESILAB (H.R.)

ATENTAMENTE
 Q.F.B. Ma. DOLORES HUERTA A.



**LABORATORIO CLINICO DEL
ZOOLOGICO DE CHAPULTEPEC**

NOMBRE COMUN: Gorila
NOMBRE CIENTIFICO: Gorilla gorilla
SEXO: MACHO

FECHA: 09-05-95

EDAD: 3.5 AÑOS

IDENTIFICACION DEL ANIMAL "BANTU"

EXAMEN/FECHA	RESULTADO	VALORES DE REFERENCIA
COPROPARASITASCOPICO		
30-04-95	Negativo	
01-05-95	<u>B. coli</u>	4 por preparación
02-05-95	<u>B. coli</u>	2 " "
03-05-95		Negativo
05-05-95	<u>B. coli</u>	2 por preparación
06-05-95	Negativo	
07-05-95	50 p/prep. de <u>B. coli</u>	
09-05-95	<u>B. coli</u>	± móviles ↓ 2 por preparación

OBSERVACIONES

ATENTAMENTE
Q.F.B. MATILDE RODRIGUEZ CORDOVA.



**LABORATORIO CLINICO DEL
ZOOLOGICO DE CHAPULTEPEC**

NOMBRE COMUN: GORILA DE TIERRAS BAJAS **FECHA:** 10-02-96.
NOMBRE CIENTIFICO: Gorilla gorilla
SEXO: MACHO **EDAD:** CRIA

IDENTIFICACION DEL ANIMAL "BANTU"

COPROPARASITOSCOPICO RESULTADO

1a. MUESTRA : 06-02-96 5 POR CAMPO DE B. coli.
 11-02-96 Negativo
 12-02-96 Negativo
 16-02-96 5 POR PREPARACION DE B. coli INMOVILES.
2a. MUESTRA : 17-02-96 3 POR PREPARACION DE B. coli MOVILES.
 20-02-96 35 POR PREPARACION DE B. coli POCO MOVILES.
 22-02-96 NEGATIVO

3a. MUESTRA :

OBSERVACIONES

ATENTAMENTE
Q.F.B. MATILDE RODRIGUEZ CORDOVA.

ZOOLOGICO DE CHAPULTEPEC - SERVICIO MEDICO VETERINARIO

FECHA: 15/7/96

M.V.Z. Carla Pobly Beron, Sanchez, Lopez

Identificación del Animal:

Nombre Común: Carla de Tierras Bajas "Barto"

Nombre Científico: Garilla garilla garilla

Sexo: macho Edad: 4 años 9 meses Marcaje: _____
9-Jul-94 → 1999

Albergue: _____ Peso Calc: 45 Real: 40.9g
55.4
- 14.5
40.9
3.54

Drogas Utilizadas:

Tiempo:	Droga:	Dosificación	Vía --- Medio:
00:00	<u>Ketamine</u>	<u>10 mg/kg 45ml mg 4.5 ml</u>	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-
_____	_____	mg/kg mg ml	-

Bitacora del Procedimiento:

Tiempo:	FC	FR	Temp	Observaciones:
00:00	_____	_____	_____	_____
13:48	_____	_____	_____	Se aplica anestesia en jamba.
14:01	_____	_____	_____	Se saca a la mano <u>FR 27/mn.</u> <u>cateter.</u>
14:03	_____	_____	_____	<u>Inducción en ojo derecho</u> 100
14:08	_____	_____	_____	<u>Tome RX.</u> <u>+ 0.5ml Ket. IV</u>
14:12	_____	_____	_____	Se extrae el 2º <u>ingreso Sp. derecho.</u> <u>6 Presuda los 2 ingresos Sp. Central</u> <u>permanentes de los laterales.</u> <u>central y later son permanentes. Los</u> <u>colubillas son temporales talas.</u>
14:18	_____	_____	_____	<u>Electro. 110 F.C./mn</u>
14:25	_____	_____	_____	<u>Cateter forneo.</u>
14:30	_____	_____	_____	<u>140/103 Presu.</u> <u>+ 5mg Ket IV</u>
14:36	_____	_____	_____	<u>107/mn</u> <u>Se saca lig. coxial oral.</u>
14:39	_____	_____	_____	<u>Tome de 100 ml de <u>derecto</u> <u>derecto</u> <u>+ 0.5ml Ket IV</u></u> <u>FR 18</u> <u>+ 100 ml Valium</u>

Tuberculización 15-7-96	1 ^a beta 24 hrs	
	2 ^a beta 48 hrs	
	3 ^a beta 72 hrs	

Resumen de la Inmovilización

Motivo: Revisar Anest Ayuno Previo: Si
 Estado General: Bueno
 Excitación: Calmado () Medio () Moderado Extremo ()
 Respuesta inmovilización: excel () Buena Justa () Mala ()
 Inducción: Suave Prolongada () Excitada () Tiempo: _____ min
 Complicaciones Anestésicas: ninguna
 Recuperación: Suave Prolongada () Excitada () 0Tiempo : _____ min

Radiografías:

Muestras:

smA	kVp	imp	toma:
_____	_____	_____	_____
_____	_____	_____	_____

Volumen Tidal (Vt) (ml):

Aves 13.2 (PCkg 1.08)

Mamíferos 6.2 (PC kg. 1.01)

Volumen / minuto (ml / min)

Vt x FR.

Espacio Muerto anatomico (ml)

Mamíferos 2.2 (PCkg. 1.01)

Frecuencia Respiratoria (por minuto)

Aves 17.2 (PCkg - 0.31)

Mamíferos 53.5 (PCkg - 0.26)

Volumen Sanguíneo (ml)

Mamíferos 65 (PCkg. 1.02)

Frecuencia Cardiaca (por minuto)

Aves 155.8 (PCkg. - 0.23)

Mamíferos 241 (PCkg. - 0.25)

Marsupiales 106 (PCkg. - 0.27)

Reptiles 33.4 (PCkg. - 0.25)

15:24 Infractura leve de tibia, "arrastándose" por el piso.

15:33. Comienza a hacer Malheri, casi se va arrastrando.

15:40 Camina unos metros sobre sus 4 miembros y luego cae. Volviendo a incorporarse.

16:04 Sube a la tarima. Se resaca de un momento y luego intenta bajar pero cae de los cuerdos, cae al piso de pie y se queda sentado un momento.

16:09 Vuelve a subir a la tarima. Se resaca en la oilla. Cae amortiguado de caída con el brazo-hembra.

16:21 Orina (esta sobre la tarima). Baja de la tarima pasando por los cuerdos.

16:27 Comienza con incoordinación pero ya no cae.

16:28 Tecebor de chos 50 ER. dur. 10-15 seg

16:28 Sube a la tarima y baja por los cuerdos.

16:36 Sube a la tarima, baja por el poste que lo sostiene.

16:51 Se sustenta.

Frases frías

00041

Observaciones:

Observaciones:	Tuberculización	Cultivo tuberculosis	ELISA tuberc.	Orina	Bazetaal	Wanee	to taral
Rayos X torax abdomen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		600 ml	
Examen Dental	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.8	
Molde dental	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.5 ml	

HOSPITAL METROPOLITANO S.A. DE C.V.
 Laboratorio de Análisis Clínicos
 Tlacotalpan 51 06760 Col. Roma Sur México D.F.
 Jefe de Laboratorio : Q. F.B. Ma. DOLORES HUERTA ARIAS.
 Tels. : Directo: 5-84-55-37 Conn.: 5-74-62-33 Ext. : 113 y 267

Paciente : GORILA BANTU
 Dr. GUAL SILL FERNANDO

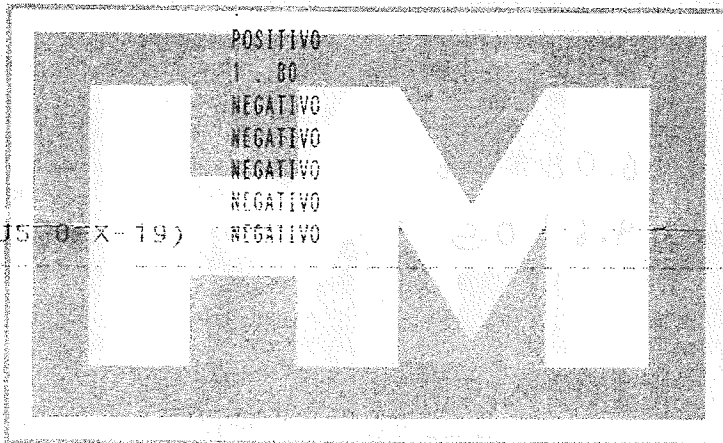
Folio : DF / 536 del 15/07/96
 Reg. : 28093 Hora: 20:57
 Fecha : 15-07-1996 Pag. 2
 PARTICULAR

EXAMEN	RESULTADO	VALORES DE REFERENCIA
GO	10.1 ± 5.1 34	UI/l 27 - 54 16 - 40
GP	5.3 ± 2.5 32	UI/l 13.2 8 - 54
OSFATASA ALCALINA	1165	UI/l 20-30 36 92

REACCIONES FEBRILES

REACCIONES DE WIDAL

TIFICO O
 TITULO
 TIFICO H
 PARATIFICO A
 PARATIFICO B
 REACCION HUDDLESON
 R. WEIL-FELIX (PROTEUS O-X-19)



POSITIVO
 1.80
 NEGATIVO
 NEGATIVO
 NEGATIVO
 NEGATIVO

GRACIAS POR SU PREFERENCIA

TESTAR (B.R.)

[Handwritten Signature]
 REPRESENTANTE
 Q. F. B. Ma. DOLORES HUERTA A

HOSPITAL METROPOLITANO S.A. DE C.V.
 Laboratorio de Análisis Clínicos
 Tlacotalpan 51 06760 Col. Roma Sur México D.F.
 Jefe de Laboratorio : Q. F.B. Ma. DOLORES HUERTA ARIAS.
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Paciente : GORILA BANTU
 Dr. GUAL SILL FERNANDO

Folio : 88 / 536 del 15/07/96
 Reg. : 28093 Hora: 20:57
 Fecha : 15-07-1996 Pag. 1
 PARTICULAR

EXAMEN	RESULTADO	VALORES DE REFERENCIA
GLUCOSA EN SUERO	79 ± 123 79 mg/dl	Wallach. 61 - 90 74 - 116
UREA EN SUERO	13.8 ± 4.2 37 mg/dl	N. J. 11.2 - 30 19 - 49
CREATININA EN SUERO	1.2 mg/dl.	0.98 0.7 - 1.5
ACIDO URICO EN SUERO	2.5 mg/dl.	2.2 - 2.8 2.1 - 7.4
COLESTEROL TOTAL	337 ± 49 357 mg/dl.	312 - 353 130 - 200
PROTEINAS TOTALES	6.08 ± 0.6 7.3 g/dl	7.16 - 9.9 6.3 - 8
ALBUMINA	4.6 ± 0.5 4.7 g/dl	4.98 3.9 - 4.9
GLOBULINAS	3.20 g/dl.	2.18 2.3 - 3.5
RELACION A/G	1.3	1.1 - 1.9
BILIRRUBINAS	0.23 ± 0.15	
BILIRRUBINA TOTAL	0.5 mg/dl.	0.05 - 1.0 0.4 - 1.4
BILIRRUBINA DIRECTA	0.2 mg/dl.	0.1 - 0.4
BILIRRUBINA INDIRECTA	0.3 mg/dl.	0.2 - 1.3
FOSFORO EN SUERO	5.2 ± 0.7 5.3 mg/dl	3.8 - 5.2 2.4 - 4.7
CALCIO EN SUERO	9.5 ± 0.2 9.9 mg/dl.	9.8 - 10.4 8.8 - 10.4
DESHIDROGENASA LACTICA SUERO	478 U/L	100 - 210
CREATINFOSFOKINASA	345 U/L	25 - 125

Continúa



ELECTROCARDIOGRAMA

NOMBRE COMÚN Gorrión de tierras bajas
 NOMBRE CIENTÍFICO Coccyz colaptes
 IDENTIFICACIÓN Berti
 SEXO Macho

FECHA 15-7-96
 EDAD 4 años 9 meses

HISTORIA

T.A 140/110

EXÁMEN CARDIACO RUIDOS CARDIACOS

RÍTMICOS SIN SONIDOS PULSOS NORMALES

RADIOGRAFÍAS DE TORAX

RESULTADOS DEL ECG

FRECUENCIA 110 LPM

RITMO SINUSAL

COMPLEJO QRS .06 SEG, 6-12 Mv

SEGMENTO S-T .28 SEG, D N E

ONDA P .08 SEG, 1 Mv

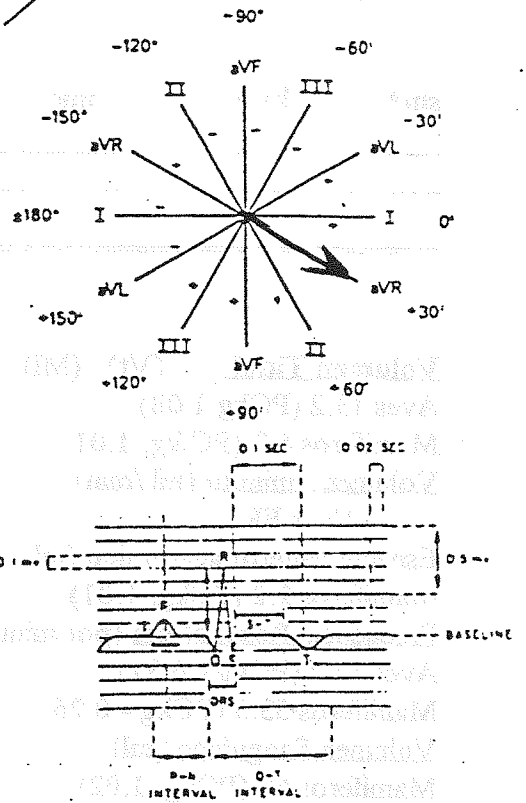
INTERVALO P-R .2 SEG

ONDA T .10 SEG, 2 Mv

INTERVALO Q-T .32 SEG

AXIS +30 GRADOS

COMENTARIOS:



PRECORDIALES

V₁ RS V₄ RS
 V₂ RS V₅ RS
 V₃ R V₆ RS

Hecho a las 10:00 hrs del día 15 de Julio de 1996 en el laboratorio de Electrocardiografía del Instituto Zoológico de Chapultepec. Dr. Arturo Norberto Velasco - Cardiólogo

Resumen de la Inmovilización

Motivo: _____ Ayuno Previo: _____
Estado General: _____
Excitación: Calmado () Medio () Moderado () Extremo ()
Respuesta inmovilización: excel () Buena () Justa () Mala ()
Inducción: Suave () Prolongada () Excitada () Tiempo: _____ min
Complicaciones Anestésicas: _____
Recuperación: Suave () Prolongada () Excitada () Tiempo: _____ min

Radiografías:

Muestras:

mA	kVp	imp	toma:	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Volumen Tidal (Vt) (ml):

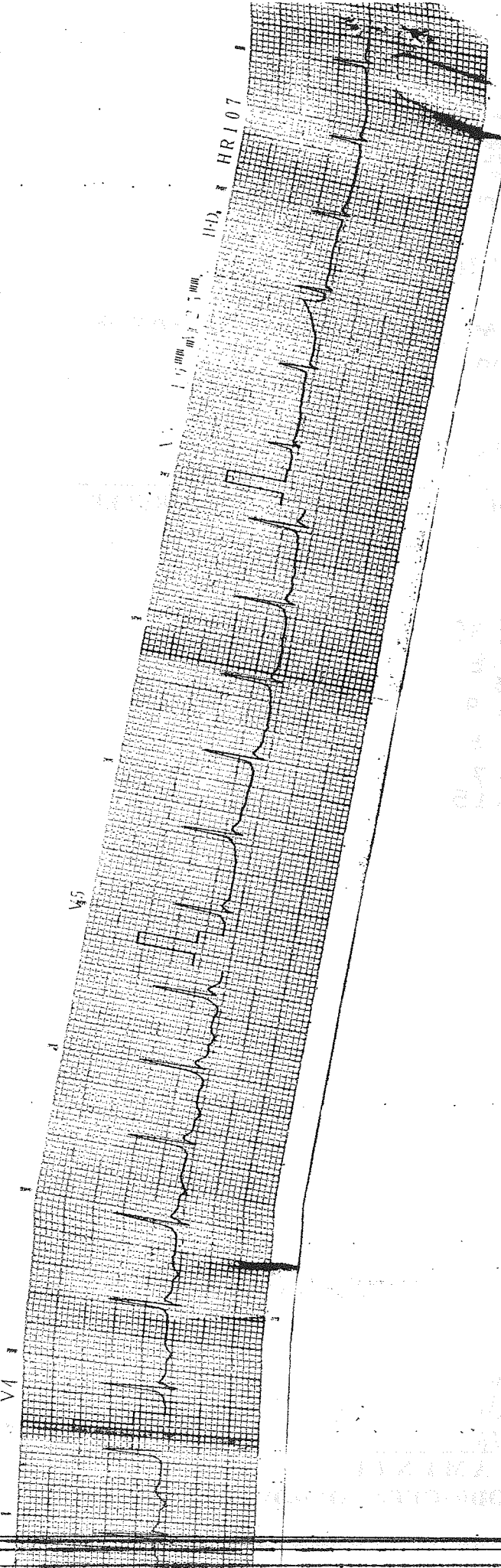
Aves 13.2 (PCkg 1.08)
Mamíferos 6.2 (PC kg. 1.01)
Volumen / minuto (ml / min)

$Vt \times FR$

Espacio Muerto anatomico (ml)
Mamíferos 2.2 (PCkg. 1.01)
Frecuencia Respiratoria (por minuto)
Aves 17.2 (PCkg - 0.31)
Mamíferos 53.5 (PCkg - 0.26)

Volumen Sanguíneo (ml)
Mamíferos 65 (PCkg. 1.02)
Frecuencia Cardiaca (por minuto)
Aves 155.8 (PCkg. - 0.23)
Mamíferos 241 (PCkg. - 0.25)
Marsupiales 106 (PCkg. - 0.27)
Reptiles 33.4 (PCkg. - 0.25)

Observaciones:



Time	ECG Lead	ECG Finding
12:00	II, III, aVF	rS
12:05	V1, V2, V3	rS
12:10	V4, V5, V6	rS
12:15	II, III, aVF	rS
12:20	V1, V2, V3	rS
12:25	V4, V5, V6	rS
12:30	II, III, aVF	rS
12:35	V1, V2, V3	rS
12:40	V4, V5, V6	rS
12:45	II, III, aVF	rS
12:50	V1, V2, V3	rS
12:55	V4, V5, V6	rS

OBSERVATIONS

ECG TRACING



LABORATORIO CLINICO

NOMBRE COMUN: GORILA DE TIERRAS BAJAS FECHA: 16-07-96
NOMBRE CIENTIFICO: Gorilla gorilla
SEXO: MACHO EDAD: - 4.10 AÑOS.

IDENTIFICACION DEL ANIMAL BANTU

BIOMETRIA HEMATICA	RESULTADO	VALORES DE REFERENCIA
--------------------	-----------	-----------------------

ERITROCITOS	(x 10 ⁶ /mm ³)	4.48
HEMOGLOBINA	(g / dl)	12.8
HEMATOCRITO	(%)	43
VCM	(μ^3)	95.9
HCM	(pg)	28.5
CMHB	(g / dl)	29.7
LEUCOCITOS	(x 10 ³ /mm ³)	13.15
V.S	(mm / hra.)	-
SEGMENTADOS	(%)	75
BANDAS	(%)	3
LINFOCITOS	(%)	2.8
MONOCITOS	(%)	2
EOSINOFILOS	(%)	1
BASOFILOS	(%)	0

OBSERVACIONES

ATENTAMENTE
Q.F.B. MATILDE RODRIGUEZ CORDOVA.

Informe del paciente

17-Jul-1996 11:22

HOSPITAL DE CARDIOLOGIA
CENTRO MEDICO NACIONAL SIGLO XXI
BIOQUIMICA CLINICA

Paciente: 7343 BANTU

ID:

Número de Copa: B28 Número de petición: 60 Edad:

Sexo:

Observ:

<u>Prueba</u>	<u>Resultados</u>	<u>Alteras</u>	<u>Baja</u>	<u>Alta</u>
<u>Razones</u>				
RELACION A/G	1.6		1.8	2.0
PROTEINAS TOT.	6.7 g/dl		6.0	8.3
ALBUMINA	4.1 g/dl		3.5	5.3



INSTITUTO MEXICANO DEL SEGURO SOCIAL
SUBDIRECCION GENERAL MEDICA

1343

Bantu
gonila

Dr. Martínez

FECHA DE ESTA SOLICITUD	FECHA DE PROX. CONSULTA	<input checked="" type="checkbox"/> PACIENTE EXTERNO	CAMA No. <i>MCIC</i>
HACER EXAMENES EL DIA	PRESENTARSE EN EL LABORATORIO A LAS HORAS	SERVICIO SOLICITANTE	
DIAGNOSTICO DE PRESUNCION O DATOS CLINICOS			

600 Fórmula Roja.	601 Fórmula Blanca.
602 Biometría de rutina.	603 Biometría completa.
Hemoglobina g/dl	
Hematocrito ml/dl	
C.M.H.G. %	
Leucocitos mm ³	
Linfocitos %	
Monocitos %	
Eosinófilos %	
Basófilos %	
Segmentados %	
En banda %	
Metamielocitos %	
Mielocitos %	
Anormalidades: Hipocromía	Poiquilocitosis
Anisocitosis	Otras
Macrocitosis	

604 Sedimentación	mm/h
605 Reticulocitos	%
606 Células L. E.	
620 Plaquetas	mm ³
621 T. sangrado	min.
622 T. coagulación	min.
623 T. de protrombina	seg.
624 T. tromboplastina parcial	seg.
627 Retracción del coágulo:	
Se inicia	min.
Fue completa	min.
680 Grupo sanguíneo (ABO)	
681 Grupo sanguíneo Rh (D)	
683 Coombs directo	
685 Coombs indirecto	

OTROS ESTUDIOS

Glucosa 81

UREA 37 mg/dl.

CREATININA 1.0

POTASIO 2.9

Sodio 140 mg/l.

Cloro

PROTEINAS TOTALES

Triglicéridos

COLESTEROL

TGO 25

TGP 21

DL 326 u/l.

CPK 182

Lipido 17 JUL. 1996

Nombre y firma de quien informa

Fecha de entrega

6200

RESULTADOS NORMALES
(En las mismas unidades expresadas en el anverso)

EXAMEN	HOMBRE	MUJER	AL NACER	NIÑOS UN AÑO	10 AÑOS	UNIDADES DE MEDIDA
603 BIOMETRIA HEMATICA						
Hemoglobina	15-20	13.5-17 g.	12.8-18.1	10.7-12.7	13.0-14.6	g/100 ml.
Hematocrito	45-60	40-52	40-62			ml/100
CMHG	32-38					%
Volumen globular	83-104					micras cúb.
Leucocitos	5,000-10,000		9-30 (miles)	6-18 (miles)	4,500-13,5000	mm ³
Linfocitos	24-38		30	60	38	%
Monocitos	4-9		5.8	4.8	4.3	"
Neutrófilos	50-70		61	31	53	"
Eosinófilos	1-4		2.2	2.6	2.4	"
Basófilos	0-1		0.6	0.4	0.5	"
Segmentados	45-65		52	28	51	"
En banda	0.7		9.1	3.1	3.0	"
Metamelocitos	0		0	0	0	"
Mielocitos	0		0	0	0	"
604 SEDIMENTACION	0-8.5	0-15	0-2		3-13	mm

- 605 Reticulocitos 0.5-1.5%
- 606 Células f.e. Negativa
- 620 Plaquetas 150,000-400,000 mm³
- 621 T. sangrado 1-3 min.
- 27 T. coagulación 8 a 12 min.
- 673 T. de protrombina 80-100 %
- 624 T. tromboplastina parcial 30-60 segundos
- 677 Retracción del coágulo
 - Se inicia a los 30 min.
 - Se completa Dentro de los siguientes 240 minutos
- 663 Coombs directo Negativo
- 666 Coombs indirecto Negativo

CLAVE: 8859
PACIENTE: PRIMATES
DOCTOR: FERNANDO GUAL
FECHA: 24-07-1996

PROPIETARIO: ZOOLOGICO DE CHAPULTEPEC

DETERMINACION DE PLOMO

ESTUDIO SOLICITADO:

PLOMO

VALOR OBTENIDO:

ORANGUTANO = NEGATIVO
GORILA BANTU = NEGATIVO
GORILA MAHARY = NEGATIVO

VALORES NORMALES:

NEGATIVO

TECNICA:

CRONATOGRAFIA DE LIQUIDOS DE ALTA PRESION

OBSERVACIONES:

NINGUNA EN ESPECIAL

RESP. M.V.Z. M.C. JUAN I. MONROY B.



MEXICO



LABORATORIO CLINICO

NOMBRE COMUN: Gorila de Tierras bajas
NOMBRE CIENTIFICO: Gorilla gorilla
SEXO: MACHO

FECHA: 28-12-97

EDAD:

IDENTIFICACION DEL ANIMAL "BANTU"

COPROPARASITOSCOPICO RESULTADO

1a. MUESTRA :

Balantidium coli 0-3 /c.

2a. MUESTRA :

3a. MUESTRA :

OBSERVACIONES

ATENTAMENTE

Q.F.B. MATILDE RODRIGUEZ CORDOVA.

LABORATORIO CLINICO

NOMBRE COMUN:
NOMBRE CIENTIFICO:
SEXO:

FECHA: 15-07-99

EDAD:

IDENTIFICACION DEL ANIMAL "BOSQUE TROPICAL SECCION GRANDES PRIMATES
"AFRICANOS"

EXAMEN COPROPARASITOSCOPICO EN SERIE DE TRES.

MANGABEY AHUMADO
Cercocebus torquatus atys

RESULTADO:

NEGATIVO

MONO NARIZ BLANCA
Cerconithecus nictitans

NEGATIVO

MONO PATAS
Erythrocebus patas

Huevos de Trichuris sp.

1.0 CHIMPANCE "JOHNY"
Pan troglodytes

NEGATIVO

1.0 CHIMPANCE "LIO"
Pan troglodytes

NEGATIVO

1.0 CHIMPANCE "PETER"
Pan troglodytes

NEGATIVO

0.1 GORILA DE TIERRAS BAJAS "MAHARI"
Gorilla gorilla

Trofozoitos de Balantidium sp.
0 a 2 por campo
Trichomona sp. 0 a 1 por campo

1.0 GORILA DE TIERRAS BAJAS "BANTU"
Gorilla gorilla

Trofozoitos de Balantidium sp.
0 a 2 por campo
Trichomona sp. 0 a 1 por campo

OBSERVACIONES NINGUNA

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA



27000

LISTA DE MEDICAMENTOS CADUCOS CAJA # 1

No.	NOMBRE DEL MEDICAMENTO	PRESENTACIÓN	FECHA DE CADUCIDAD	CANTIDAD
1	> AMINO LITE	> FRASCO C/500 ML.	> ABRIL 96	> 20
2	> AMOXIL PEDIATRICO SUSPENSIÓN	* FRASCO C/75 ML.	> SEP-30-96	> 8
3	> BIOTHRINE	> FRASCO C/950 ML.	> SEP-95	① 2
4	> BIOTHRINE	> FRASCO C/950 ML.	> JUNIO-96	① 7
5	> BUSCAPINA COMPOSITUM	> FRASCO C/50 ML.	> MAYO-96	② 1
6	> BUSCAPINA COMPOSITUM	> FRASCO C/50 ML.	> OCT-96	② 6
7	> CASILAN POLVO	> CAJA C/120 GR.	> JUNIO-30-96	> 3
8	> COMBANTRÍN TABLETAS	> CAJA C/6 TABS.	> NOV-25-96	> 3
<p>* Botellita al 31 de agosto 1996 100 ML</p> <p>DE... Alderete... ... 1996</p> <p>① ... Mayo 96 - 7</p>				

UNIDAD DE ZOOLOGICOS DE LA CIUDAD DE MEXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"
LABORATORIO CLINICO

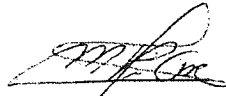
NOMBRE COMÚN: GORILA DE TIERRAS BAJAS FECHA: 30-01-99
NOMBRE CIENTÍFICO: Gorilla gorilla gorilla EDAD:
SEXO: MACHO
IDENTIFICACIÓN DEL ANIMAL: "BANTU"

COPROPARASITOSCÓPICO EN SERIE DE TRES.

RESULTADO:

1a. MUESTRA	27-01-99	NEGATIVO
2a. MUESTRA	28-01-99	NEGATIVO
3a. MUESTRA	29-01-99	NEGATIVO

OBSERVACIONES:



ATENTAMENTE
Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCION GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MEXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLINICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
NOMBRE CIENTÍFICO: Gorilla gorilla
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

FECHA: 21-12-99

EDAD:

COPROPARASITOSCÓPICO EN SERIE DE TRES.

RESULTADO:

1ª. MUESTRA: 07-12-99

Trofozoitos de Balantidium sp.
0 a 3 por campo

2ª. MUESTRA: 08-12-99

Trofozoitos de Balantidium sp.
0 a 1 por campo

3ª. MUESTRA: 09-12-99


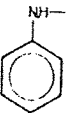
Trofozoitos de Balantidium sp.
0 a 1 por campo

OBSERVACIONES: NINGUNA

ATENTAMENTE



Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

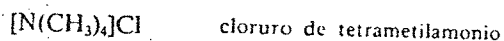
$\text{CH}_3\text{—NH—CH}_3$ dimetilamina	 anilina
$\text{CH}_3\text{—CH}_2\text{—NH—CH}_3$ etilmetilamina	 fenilmetilamina
$\text{CH}_3\text{—CH}_2\text{—NH—CH}_2\text{—CH}_3$ dietilamina	
$\text{CH}_3\text{—CH—NH—CH}_3$ CH_3 isopropilmetilamina	

En algunos casos especiales se ha usado una nomenclatura para las diaminas en carbonos extremos, basada en la repetición del radical $\text{—CH}_2\text{—}$, metileno:

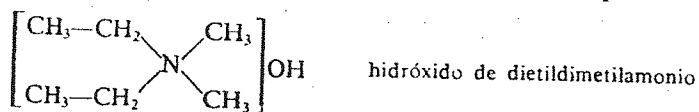
$\text{NH}_2\text{—CH}_2\text{—CH}_2\text{—NH}_2$ dimetilendiamina	$\text{NH}_2\text{—(CH}_2\text{)}_5\text{—NH}_2$ pentametilendiamina
$\text{NH}_2\text{—CH}_2\text{—CH}_2\text{—CH}_2\text{—NH}_2$ trimetilendiamina	$\text{NH}_2\text{—(CH}_2\text{)}_6\text{—NH}_2$ hexametilendiamina
$\text{NH}_2\text{—CH}_2\text{—CH}_2\text{—CH}_2\text{—CH}_2\text{—NH}_2$ tetrametilendiamina	$\text{NH}_2\text{—CH}_2\text{—NH}_2$ metilendiamina

2. SALES DE AMONIO ALQUILADAS

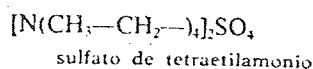
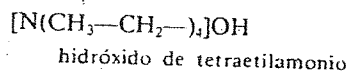
Son unos compuestos emparentados con las aminas: se forman por sustitución de los átomos de hidrógeno del catión amonio, NH_4^+ , por radicales. Por ejemplo, del NH_4Cl se pueden sustituir los átomos de hidrógeno por metilos y queda:



Podíamos hablar de «aminas cuaternarias», pero se les da el nombre de sales de amonio cuaternarias. También existen las bases correspondientes, como:



Algunas sustancias de éstas, expresadas con sus fórmulas y nombres, son:



LABORATORIO CLINICO

NOMBRE COMUN:
 NOMBRE CIENTIFICO:
 SEXO:

FECHA: 15-07-99
 EDAD:

IDENTIFICACION DEL ANIMAL "BOSQUE TROPICAL SECCION GRANDES PRIMATES AFRICANOS"

EXAMEN
 COPROPARASITOSCOPICO EN SERIE DE TRES.

R E S U L T A D O :

MANGABEY AHUMADO
Cercocebus torquatus atys

NEGATIVO

MONO NARIZ BLANCA
Cercoptes nictitans

NEGATIVO

MONO PATAS
Erythrocebus patas

Huevos de Trichuris sp.

1.0 CHIMPANCE "JOHNY"
Pan troglodytes

NEGATIVO

1.0 CHIMPANCE "LIO"
Pan troglodytes

NEGATIVO

1.0 CHIMPANCE "PETER"
Pan troglodytes

NEGATIVO

0.1 GORILA DE TIERRAS BAJAS "MAHARI"
Gorilla gorilla

Trofozoitos de Balantidium sp.
 0 a 2 por campo
Trichomona sp. 0 a 1 por campo

1.0 GORILA DE TIERRAS BAJAS "BANTU"
Gorilla gorilla

Trofozoitos de Balantidium sp.
 0 a 2 por campo
Trichomona sp. 0 a 1 por campo

OBSERVACIONES NINGUNA


 ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA



27-0-96

LISTA DE MEDICAMENTOS CADUCOS CAJA # 1

No.	NOMBRE DEL MEDICAMENTO	PRESENTACIÓN	FECHA DE CADUCIDAD	CANTIDAD
1	> AMINO LITE	> FRASCO C/500 ML.	> ABRIL 96	> 20
2	> AMOXIL PEDIATRICO SUSPENSIÓN	* FRASCO C/75 ML.	> SEP-30-96	> 8
3	> BIOTHRINE	> FRASCO C/950 ML.	> SEP-95	> 2
4	> BIOTHRINE	> FRASCO C/950 ML.	> JUNIO-96	① 7
5	> BUSCAPINA COMPOSITUM	> FRASCO C/50 ML.	> MAYO-96	② 1
6	> BUSCAPINA COMPOSITUM	> FRASCO C/50 ML.	> OCT-96	③ 6
7	> CASILAN POLVO	> CAJA C/120 GR.	> JUNIO-30-96	> 3
8	> COMBANTRÍN TABLETAS	> CAJA C/6 TABS.	> NOV-25-96	> 3

* Entuluta al 31 de agosto tiene
 100 ML

① Entuluta al 31 de agosto tiene
 7 de junio 96 8

② Entuluta al 31 de agosto tiene
 Mayo 96 - 7

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS FECHA: 21-01-00
NOMBRE CIENTÍFICO: *Gorilla gorilla*
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

COPROPARASITOSCÓPICO EN SERIE DE TRES.

RESULTADO:

1ª. MUESTRA: 18-01-00

NEGATIVO

2ª. MUESTRA: 19-01-00

Trofozoitos *Balantidium* sp. 0-1 por campo

3ª. MUESTRA: 20-01-00

Trofozoitos *Balantidium* sp. 0-1 por campo

OBSERVACIONES: NINGUNA

ATENTAMENTE



Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
NOMBRE CIENTÍFICO: *Gorilla gorilla*
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

FECHA: 23-09-00

EXÁMEN GENERAL DE ORINA

ASPECTO:
COLOR:
pH:
GRAVEDAD ESPECÍFICA:

RESULTADO:
LIGERAMENTE TURBIA
ÂMARILLO-NARANJA
8.5
1.019

EXÁMEN QUÍMICO

GLUCOSA:
BILIRRUBINA:
CETONA:
SANGRE:
PROTEÍNA:
UROBILINÓGENO:
NITRITO:
LEUCOCITOS:

NEGATIVA
NEGATIVA
NEGATIVA
NEGATIVA
NEGATIVA
NORMAL
POSITIVO
NEGATIVO

EXÁMEN SEDIMENTO:

LEUCOCITOS:
ERITROCITOS:
BACTERIAS:
CRISTALES:
CILINDROS:
CÉLULAS EPITELIALES:
• DESCAMACIÓN
• TRANSICIÓN
• TUBULARES

0 A 1 POR CAMPO
NO HAY
ESCASAS
FOSFATO CALCIO ESCASOS
NO HAY
1 A 3 POR CAMPO
NO HAY
NO HAY

OTROS:

OBSERVACIONES: NINGUNA

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
NOMBRE CIENTÍFICO: *Gorilla gorilla*
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

FECHA: 22-02-00

EXÁMEN GENERAL DE ORINA

ASPECTO:	TURBIA +
COLOR:	AMARILLO CLARO
pH:	8.5
GRAVEDAD ESPECÍFICA:	1.010


EXÁMEN QUÍMICO	
GLUCOSA:	NEGATIVA
BILIRRUBINA:	NEGATIVA
CETONA:	NEGATIVA
SANGRE:	POSITIVA +++
PROTEÍNA:	NEGATIVA
UROBILINÓGENO:	NORMAL
NITRITO:	POSITIVO
LEUCOCITOS:	NEGATIVO

EXÁMEN SEDIMENTO:	
LEUCOCITOS:	NO HAY
ERITROCITOS:	0 A 1 POR CAMPO
BACTERIAS:	+++
CRISTALES:	NO HAY
CILINDROS:	NO HAY
CÉLULAS EPITELIALES:	
• DESCAMACIÓN	1 A 2 POR CAMPO
• TRANSICIÓN	NO HAY
• TUBULARES	NO HAY

OTROS:

OBSERVACIONES: HEMATURIA.

ATENTAMENTE


Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MEXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
NOMBRE CIENTÍFICO: *Gorilla gorilla*.
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

FECHA: 23-09-00

EXÁMEN GENERAL DE ORINA

ASPECTO:
COLOR:
pH:
GRAVEDAD ESPECÍFICA:

RESULTADO:
LIGERAMENTE TURBIA
ÁMARILLO-NARANJA
8.5
1.019

EXÁMEN QUÍMICO

GLUCOSA:
BILIRRUBINA:
CETONA:
SANGRE:
PROTEÍNA:
UROBILINÓGENO:
NITRITO:
LEUCOCITOS:

NEGATIVA
NEGATIVA
NEGATIVA
NEGATIVA
NEGATIVA
NORMAL
POSITIVO
NEGATIVO

EXÁMEN SEDIMENTO:


LEUCOCITOS:
ERITROCITOS:
BACTERIAS:
CRISTALES:
CILINDROS:
CÉLULAS EPITELIALES:
• DESCAMACIÓN
• TRANSICIÓN
• TUBULARES

0 A 1 POR CAMPO
NO HAY
ESCASAS
FOSFATO CALCIO ESCASOS
NO HAY
1 A 3 POR CAMPO
NO HAY
NO HAY

OTROS:

OBSERVACIONES: NINGUNA

ATENTAMENTE


Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS

FECHA: 17-04-01

NOMBRE CIENTÍFICO: *Gorilla gorilla*

SEXO: MACHO

IDENTIFICACIÓN: "BANTU" MUESTRA MUY CONTAMINADA.

EXÁMEN GENERAL DE ORINA

ASPECTO:
COLOR:
pH:
GRAVEDAD ESPECÍFICA:

RESULTADO:
TURBIA +++
LIGERAMENTE CAFÉ
8.0
1.009

EXÁMEN QUÍMICO

GLUCOSA:
BILIRRUBINA:
CETONA:
SANGRE:
PROTEÍNA:
UROBILINÓGENO:
NITRITO:
LEUCOCITOS:

NEATIVA
NEGATIVA
NEGATIVA
POSITIVA +
NEGATIVA
NORMAL
NEGATIVO
NEGATIVO

EXÁMEN SEDIMENTO:

LEUCOCITOS:
ERITROCITOS:
BACTERIAS:
CRISTALES:
CILINDROS;
CÉLULAS EPITELIALES:
• DESCAMACIÓN
• TRANSICIÓN
• TUBULARES

0 A 1 POR CAMPO
NO HAY
+++
FOSFATO TRIPLE ESCASOS
NO HAY

0 A 3 POR CAMPO
NO HAY
NO HAY

OTROS:

OBSERVACIONES: NINGUNA

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS

FECHA: 19-04-01

NOMBRE CIENTÍFICO: *Gorilla gorilla*

SEXO: MACHO

IDENTIFICACIÓN: "BANTU" MUESTRA RECOLECTADA A LAS 7:00 AM

EXÁMEN GENERAL DE ORINA

ASPECTO:
COLOR:
pH:
GRAVEDAD ESPECÍFICA:

RESULTADO:

TURBIA +
AMBAR
7.0
1.017

EXÁMEN QUÍMICO

GLUCOSA:
BILIRRUBINA:
CETONA:
SANGRE:
PROTEÍNA:
UROBILINÓGENO:
NITRITO:
LEUCOCITOS:

NEGATIVA
NEGATIVA
NEGATIVA
TRAZAS
NEGATIVA
NORMAL
POSITIVO
NEGATIVO

EXÁMEN SEDIMENTO:

LEUCOCITOS:
ERITROCITOS:
BACTERIAS:
CRISTALES:
CILINDROS:
CÉLULAS EPITELIALES:
• DESCAMACIÓN
• TRANSICIÓN
• TUBULARES

0 A 1 POR CAMPO
NO HAY
++
NO HAY
NO HAY
0 A 2 POR CAMPO
NO HAY
NO HAY

OTROS:

OBSERVACIONES: MUESTRA CONTAMINADA.

ATENTAMENTE


Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

Stud #	Sex	Birth Date	Sire	Dam	Location	Date	Local ID	Event	Rearing Name
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Chapultepec Zoo, Mexico City, District Federal, Mexico

1193	M	20 Sep 1991	116	210	MEXICOCTY	20 Sep 1991		Birth	Parent Bantu
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Totals: 1.0.0 (1)

Guadalajara Zoo, Guadalajara, Jalisco, Mexico

1155	M	~ Jan 1986	WILD	WILD	GUINEA GUADALJR	???? 16 May 1989	NONE M00131	Capture Transfer	Parent Chato
1156	F	~ 1986	WILD	WILD	GUINEA GUADALJR	???? 16 May 1989	NONE M00132	Capture Transfer	Parent Chiquita
1505	F	9 Apr 1998	1155	1156	GUADALJR	9 Apr 1998	M01644	Birth	Parent Iyari
1506	F	21 Mar 1994	1155	1156	GUADALJR	21 Mar 1994	M01093	Birth	Parent Faustina

Totals: 1.3.0 (4)

Zoologico de Zacango, Toluca, Mexico, Mexico

1276	F	????	WILD	WILD	AFRICAN TOLUCA	???? 1 Jul 1989	NONE	Capture Transfer	Parent Arila
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Totals: 0.1.0 (1)

Belo Horizonte Zoo, Belo Horizonte, Minas Gerais, Brazil

1056	M	~ 1973	WILD	WILD	AFRICAN HORIZONTE	???? 15 Jan 1975	NONE	Capture Transfer	Parent Idi Amin
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Totals: 1.0.0 (1)

Sao Paulo Zoo, Sao Paulo, Brazil

471	M	~ 1969	WILD	WILD	GUINEA LISBON SAO PAULO	???? 23 Dec 1972 23 Dec 1972	NONE 5601	Capture Transfer Transfer	Parent Virgolino
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Totals: 1.0.0 (1)

=====
 TOTALS: 4.4.0 (9)
 5 Institutions

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
NOMBRE CIENTÍFICO: *Gorilla gorilla*.
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

FECHA: 02-10-01

EXÁMEN GENERAL DE ORINA

ASPECTO:	RESULTADO:
COLOR:	TURBIA ++
pH:	ÁMARILLO
GRAVEDAD ESPECÍFICA:	8.5
	1.019

EXÁMEN QUÍMICO

GLUCOSA:	NEGATIVA
BILIRRUBINA:	NEGATIVA
CETONA:	NEGATIVA
SANGRE:	POSITIVA
PROTEÍNA:	NEGATIVA
UROBILINÓGENO:	NORMAL
NITRITO:	NEGATIVO
LEUCOCITOS:	TRAZAS

EXÁMEN SEDIMENTO:

LEUCOCITOS:	0 A 1 POR CAMPO
ERITROCITOS:	NO HAY
BACTERIAS:	++
CRISTALES:	FOSFATO CALCIO ESCASOS
CILINDROS:	NO HAY
CÉLULAS EPITELIALES:	
• DESCAMACIÓN	1 A 3 POR CAMPO
• TRANSICIÓN	NO HAY
• TUBULARES	NO HAY

OTROS:

OBSERVACIONES: MUESTRA MUY CONTAMINADA.

ATENTAMENTE



Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
 ZOOLOGICO DE CHAPULTEPEC
 "ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
 NOMBRE CIENTÍFICO: *Gorilla gorilla*
 SEXO: MACHO
 IDENTIFICACIÓN: "BANTU"

FECHA: 09-11-01

EXÁMEN GENERAL DE ORINA

APARIENCIA:	TURBIA ++
COLOR:	CAFÉ ROJIZA
pH:	8.5
GRAVEDAD ESPECIFICA:	1.006

EXÁMEN QUÍMICO

GLUCOSA:	NEGATIVA
BILIRRUBINA:	NEGATIVA
CETONA:	NEGATIVA
SANGRE:	POSITIVA +
PROTEINA:	NEGATIVA
UROBILINÓGENO:	NORMAL
NITRITOS:	NEGATIVO
LEUCOCITOS:	NEGATIVO

EXÁMEN SEDIMENTO

BACTERIAS:	+++
ERITROCITOS:	NO HAY
LEUCOCITOS:	NO HAY
CRISTALES:	FOSFATO DE CALCIO ESCASOS
CILINDROS:	NO HAY
CELULAS EPITELIALES	
• DESCAMACIÓN:	0 A 1 POR CAMPO
• TRANSICIÓN:	NO HAY
• TUBULARES:	NO HAY
OTROS:	DETRITUS CONTAMINANTES ABUNDANTES

OBSERVACIONES: Muestra muy contaminada.

ATENTAMENTE



Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
 ZOOLOGICO DE CHAPULTEPEC
 "ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
 NOMBRE CIENTÍFICO: *Gorilla gorilla*
 SEXO: MACHO
 IDENTIFICACIÓN: ~~XXXXXX~~

EXÁMEN GENERAL DE ORINA

APARIENCIA:	TURBIA +	TURBIA ++
COLOR:	AMARILLO PAJA	AMARILLO PAJA
pH:	8.0	8.5
GRAVEDAD ESPECÍFICA:	1.010	1.005

EXÁMEN QUÍMICO

BILIRRUBINA:	NEGATIVA	NEGATIVA
CETONA:	NEGATIVA	NEGATIVA
SANGRE:	NEGATIVA	NEGATIVA
PROTEÍNA:	NEGATIVA	NEGATIVA
UROBILINÓGENO:	NORMAL	NORMAL
NITRITOS:	NEGATIVO	POSITIVO
LEUCOCITOS:	NEGATIVO	NEGATIVO

EXÁMEN SEDIMENTO

BACTERIAS:	+	++
ERITROCITOS:	NO HAY	NO HAY
LEUCOCITOS:	0 A 1 POR CAMPO	NO HAY
CRISTALES:	FOSFATOS AMORFOS ABUNDANTES	FOSFATOS CALCIO ESCASOS
CILINDROS:	NO HAY	NO HAY
CÉLULAS EPITELIALES		
• DESCAMACIÓN:	0 A 1 POR CAMPO	0 A 1 POR CAMPO
• TRANSICIÓN:	NO HAY	NO HAY
• TUBULARES:	NO HAY	NO HAY
OTROS:		

OBSERVACIONES: NINGUNA.

ATENTAMENTE



Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
"ALFONSO L. HERRERA"

LABORATORIO CLÍNICO

NOMBRE COMÚN: GORILA DE TIERRAS BAJAS
NOMBRE CIENTÍFICO: *Gorilla gorilla*
SEXO: MACHO
IDENTIFICACIÓN: "BANTU"

COPROPARASITOSCÓPICO EN SERIE DE TRES

RESULTADO:

1ª. MUESTRA: 05-11-01 Trofozoitos de *Balantidium* sp. 0 a 1 por campo

2ª. MUESTRA: 14-11-01 Trofozoitos de *Balantidium* sp. 0 a 1 por campo

3ª. MUESTRA: 16-11-01 Trofozoitos de *Balantidium* sp. 0 a 1 por campo

OBSERVACIONES: NINGUNA

ATENTAMENTE



Q.F.B. MA. DE LOS ANGELES PIÑTADO ESCAMILLA

Diet Name: Gorilla Bantu

Facility: Generic Facility
Building: Generic Building
Enclosure: Generic Enclosure

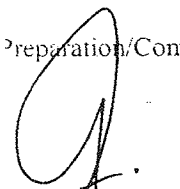
Animal: GORILLA
Taxon: GORILLA GORILLA (no subsp)

Estimated animal weight: 130 Kg
SIS #'s

Number of animals in enclosure: 01.00.00
Est calories reqt each: 4755.24 kcal
Calories provided by diet: 5,161.37 kcal ME Primate

Feed	Description	Source	Qty (g As Fed)
alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	1,500.00
Leaf-Eater Primate Diet	5M02	Mazuri	831.00
Centrum Multivitamin	Vitamin	Lederle	1.50
Apples, with skin	Raw		600.00
Bananas	Raw		1,086.00
Oranges	Raw, w/ peel		400.00
Carrots	Raw		1,500.00
Celery	Raw		400.00
Ice, looseleaf	Raw		1,000.00
Potatoes	Raw, flesh and skin		600.00

Preparation/Comments: Se aumento el 10% proporcional de toda la dieta. Hacer ajustes.


Nutritionist

Nutrient Composition of Diet (Dry Matter Basis):

Water, %	75.22	ADF, %	13.66	Ca, %	0.53
Energy, kcal/g	2.63	Ash, %	6.91	P, %	0.37
Protein, %	15.55	Vit A, IU/g or RE/g	237.33	Ca:P ratio	1.42:1
Fat, %	3.45	Vit D3, IU/g	1.49		
NDF, %	20.40	Vit E, IU/Kg	114.64		

Digestibility of diet: Species Model: Primate, Nonhuman; Old World/All Stages, Intake studies: none, Intake as Offered.

References:

DIRECCIÓN GENERAL DE ZOOLOGICOS DE LA CIUDAD DE MÉXICO
ZOOLOGICO DE CHAPULTEPEC
LABORATORIO CLÍNICO

BIOMA: BOSQUE TROPICAL

COPROPARASITOSCÓPICO EN SERIE DE TRES

ANIMAL	RESULTADO:
1.0 Gorila de tierras bajas "Bantú"	Quistes de <i>Balantidium</i> sp. 0 a 2 por campo
0.1 Gorila de tierras bajas "Mahari"	Quistes de <i>Balantidium</i> sp. 0 a 2 por campo
1.0 Chimpancé "Jonhy"	Negativo
1.0 Chimpancé "Peter"	Negativo
1.0 Chimpancé "Lio"	Negativo
Mono patas 1	Huevos de <i>Trichuris</i> sp.
Mono patas 2	Negativo
Mono nariz blanca	Negativo
Titís	Negativo

OBSERVACIONES: Muestras recolectadas del 27 de diciembre del 2001 al 5 de enero del 2002.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter. (24.78% DM / 75.22% Water)

Diet Name: Gorila Bantu

Nutrient: Potassium

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	1.18	%	33.22
Centrum Multivitamin	Vitamin	Lederle	2.80	%	0.16
Apples, with skin	Raw		0.72	%	2.60
Bananas	Raw		1.54	%	16.22
Oranges	Raw, w/ peel		1.11	%	2.96
Carrots	Raw		2.65	%	18.27
Celery	Raw		5.35	%	4.33
Lettuce, looseleaf	Raw		4.40	%	9.96
Potatoes	Raw, flesh and skin		2.58	%	12.29
Based on 81.06% of dietary ingredients. Total:			1.35	%	

Nutrient: Selenium

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	0.26	mg/kg	75.67
Centrum Multivitamin	Vitamin	Lederle	14.00	mg/kg	8.31
Apples, with skin	Raw		0.02	mg/kg	0.71
Bananas	Raw		0.04	mg/kg	4.73
Oranges	Raw, w/ peel		0.04	mg/kg	1.11
Carrots	Raw		0.09	mg/kg	6.53
Celery	Raw		0.17	mg/kg	1.43
Lettuce, looseleaf	Raw		0.03	mg/kg	0.79
Potatoes	Raw, flesh and skin		0.01	mg/kg	0.71
Based on 81.06% of dietary ingredients. Total:			0.13	mg/kg	

Nutrient: Sodium

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	0.30	%	68.79
Apples, with skin	Raw		0.00	%	0.00
Bananas	Raw		0.00	%	0.33
Oranges	Raw, w/ peel		0.01	%	0.25
Carrots	Raw		0.29	%	16.10
Celery	Raw		1.62	%	10.67
Lettuce, looseleaf	Raw		0.15	%	2.76
Potatoes	Raw, flesh and skin		0.03	%	1.10
Based on 81.04% of dietary ingredients. Total:			0.17	%	

Nutrient: Zinc

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	161.11	mg/kg	46.62
Centrum Multivitamin	Vitamin	Lederle	110,000.00	mg/kg	55.62
Apples, with skin	Raw		2.49	mg/kg	0.08
Bananas	Raw		6.22	mg/kg	0.59
Oranges	Raw, w/ peel		6.21	mg/kg	0.15
Carrots	Raw		16.38	mg/kg	1.01
Celery	Raw		24.25	mg/kg	0.18
Lettuce, looseleaf	Raw		48.33	mg/kg	0.98
Potatoes	Raw, flesh and skin		18.54	mg/kg	0.79
Based on 81.06% of dietary ingredients. Total:			151.21	mg/kg	

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter, (24.78% DM / 75.22% Water)

Diet Name: Gorila Bantu

Nutrient: **Iodine**

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	1.24	mg/kg	98.30
Centrum Multivitamin	Vitamin	Lederle	10.70	mg/kg	1.70
Based on 10.51% of dietary ingredients. Total:			0.48	mg/kg	

Nutrient: **Iron**

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	533.33	mg/kg	87.92
Centrum Multivitamin	Vitamin	Lederle	13,000.00	mg/kg	4.30
Apples, with skin	Raw		11.20	mg/kg	0.24
Bananas	Raw		12.04	mg/kg	0.74
Oranges	Raw, w/ peel		45.20	mg/kg	0.71
Carrots	Raw		40.95	mg/kg	1.65
Celery	Raw		74.63	mg/kg	0.35
Lettuce, looseleaf	Raw		233.33	mg/kg	3.09
Potatoes	Raw, flesh and skin		36.12	mg/kg	1.01
Based on 81.06% of dietary ingredients. Total:			231.24	mg/kg	

Nutrient: **Magnesium**

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	0.23	%	63.28
Centrum Multivitamin	Vitamin	Lederle	7.10	%	3.86
Apples, with skin	Raw		0.03	%	1.09
Bananas	Raw		0.11	%	11.42
Oranges	Raw, w/ peel		0.08	%	2.03
Carrots	Raw		0.12	%	8.16
Celery	Raw		0.21	%	1.60
Lettuce, looseleaf	Raw		0.18	%	3.99
Potatoes	Raw, flesh and skin		0.10	%	4.57
Based on 81.06% of dietary ingredients. Total:			0.14	%	

Nutrient: **Manganese**

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	138.89	mg/kg	86.48
Centrum Multivitamin	Vitamin	Lederle	1,800.00	mg/kg	2.25
Apples, with skin	Raw		2.80	mg/kg	0.22
Bananas	Raw		5.91	mg/kg	1.37
Carrots	Raw		11.63	mg/kg	1.77
Celery	Raw		19.03	mg/kg	0.34
Lettuce, looseleaf	Raw		125.00	mg/kg	6.24
Potatoes	Raw, flesh and skin		12.50	mg/kg	1.31
Based on 76.01% of dietary ingredients. Total:			61.22	mg/kg	

Nutrient: **Phosphorus**

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	0.74	%	76.08
Centrum Multivitamin	Vitamin	Lederle	7.80	%	1.60
Apples, with skin	Raw		0.04	%	0.57
Bananas	Raw		0.08	%	2.97
Oranges	Raw, w/ peel		0.12	%	1.20
Carrots	Raw		0.36	%	9.02
Celery	Raw		0.47	%	1.37
Lettuce, looseleaf	Raw		0.42	%	3.42
Potatoes	Raw, flesh and skin		0.22	%	3.77
Based on 81.06% of dietary ingredients. Total:			0.37	%	

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter, (24.78% DM / 75.22% Water)

Diet Name: Gorila Bantu

Centrum Multivitamin	Vitamin	Lederle	286.00	IU Vit D3/g	14.68
	Based on 10.51% of dietary ingredients. Total:		1.49	IU Vit D3/g	

Nutrient: Vit E

<u>Feed</u>	<u>Description</u>	<u>Source</u>	<u>Qty</u>	<u>Unit</u>	<u>Contribution %</u>
Leaf-Eater Primate Diet	5M02	Mazuri	233.33	mg/kg	77.59
Centrum Multivitamin	Vitamin	Lederle	21,000.00	mg/kg	14.00
Apples, with skin	Raw		19.91	mg/kg	0.85
Bananas	Raw		10.49	mg/kg	1.30
Oranges	Raw, w/ peel		13.56	mg/kg	0.43
Carrots	Raw		37.67	mg/kg	3.07
Celery	Raw		67.16	mg/kg	0.64
Lettuce, looseleaf	Raw		73.33	mg/kg	1.96
Potatoes	Raw, flesh and skin		2.85	mg/kg	0.16
	Based on 81.06% of dietary ingredients. Total:		114.64	mg/kg	

Nutrient Category: Ash/minerals

Nutrient: Ash

<u>Feed</u>	<u>Description</u>	<u>Source</u>	<u>Qty</u>	<u>Unit</u>	<u>Contribution %</u>
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	8.40	%	23.25
Leaf-Eater Primate Diet	5M02	Mazuri	8.11	%	44.78
Apples, with skin	Raw		1.62	%	1.15
Bananas	Raw		3.11	%	6.41
Oranges	Raw, w/ peel		3.39	%	1.77
Carrots	Raw		7.13	%	9.63
Celery	Raw		15.30	%	2.42
Lettuce, looseleaf	Raw		15.00	%	6.64
Potatoes	Raw, flesh and skin		4.23	%	3.94
	Based on 99.98% of dietary ingredients. Total:		6.91	%	

Nutrient: Calcium

<u>Feed</u>	<u>Description</u>	<u>Source</u>	<u>Qty</u>	<u>Unit</u>	<u>Contribution %</u>
Leaf-Eater Primate Diet	5M02	Mazuri	1.14	%	82.24
Centrum Multivitamin	Vitamin	Lederle	11.60	%	1.67
Apples, with skin	Raw		0.04	%	0.40
Bananas	Raw		0.02	%	0.63
Oranges	Raw, w/ peel		0.40	%	2.69
Carrots	Raw		0.22	%	3.89
Celery	Raw		0.75	%	1.54
Lettuce, looseleaf	Raw		1.13	%	6.53
Potatoes	Raw, flesh and skin		0.03	%	0.40
	Based on 81.06% of dietary ingredients. Total:		0.53	%	

Nutrient: Copper

<u>Feed</u>	<u>Description</u>	<u>Source</u>	<u>Qty</u>	<u>Unit</u>	<u>Contribution %</u>
Leaf-Eater Primate Diet	5M02	Mazuri	23.33	mg/kg	72.74
Centrum Multivitamin	Vitamin	Lederle	1,400.00	mg/kg	8.75
Apples, with skin	Raw		2.55	mg/kg	1.03
Bananas	Raw		4.04	mg/kg	4.71
Oranges	Raw, w/ peel		3.22	mg/kg	0.95
Carrots	Raw		3.85	mg/kg	2.94
Celery	Raw		6.34	mg/kg	0.57
Lettuce, looseleaf	Raw		7.33	mg/kg	1.83
Potatoes	Raw, flesh and skin		12.31	mg/kg	6.48
	Based on 81.06% of dietary ingredients. Total:		12.23	mg/kg	

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter, (24.78% DM / 75.22% Water)

Diet Name: Gorila Bantu

Ingredient	Form	Quantity	Unit	Contribution %
Bananas	Raw	3.15	IU A/g or RE/g	0.19
Oranges	Raw, w/ peel	14.12	IU A/g or RE/g	0.21
Carrots	Raw	2,303.77	IU A/g or RE/g	90.61
Celery	Raw	25.00	IU A/g or RE/g	0.12
Lettuce, looseleaf	Raw	316.67	IU A/g or RE/g	4.08
Potatoes	Raw, flesh and skin	0.00	IU A/g or RE/g	0.00
Based on 81.06% of dietary ingredients. Total:		237.33	IU A/g or RE/g	

Nutrient: Vit B12

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	0.06	mcg/g	0.64
Centrum Multivitamin	Vitamin	Lederle	4,300.00	mcg/g	99.36
Apples, with skin	Raw		0.00	mcg/g	0.00
Bananas	Raw		0.00	mcg/g	0.00
Oranges	Raw, w/ peel		0.00	mcg/g	0.00
Carrots	Raw		0.00	mcg/g	0.00
Celery	Raw		0.00	mcg/g	0.00
Lettuce, looseleaf	Raw		0.00	mcg/g	0.00
Potatoes	Raw, flesh and skin		0.00	mcg/g	0.00
Based on 81.06% of dietary ingredients. Total:			3.31	mcg/g	

Nutrient: Vit B6 Pyridoxine

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	12.22	mg/kg	40.02
Centrum Multivitamin	Vitamin	Lederle	1,400.00	mg/kg	9.19
Apples, with skin	Raw		2.99	mg/kg	1.26
Bananas	Raw		22.46	mg/kg	27.48
Oranges	Raw, w/ peel		5.25	mg/kg	1.63
Carrots	Raw		12.04	mg/kg	9.65
Celery	Raw		16.23	mg/kg	1.52
Lettuce, looseleaf	Raw		9.17	mg/kg	2.41
Potatoes	Raw, flesh and skin		12.36	mg/kg	6.83
Based on 81.06% of dietary ingredients. Total:			11.64	mg/kg	

Nutrient: Vit C Ascorbic Acid

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	1,111.11	mg/kg	46.73
Centrum Multivitamin	Vitamin	Lederle	43,000.00	mg/kg	3.63
Apples, with skin	Raw		354.70	mg/kg	1.92
Bananas	Raw		353.54	mg/kg	5.56
Oranges	Raw, w/ peel		4,011.30	mg/kg	15.97
Carrots	Raw		761.67	mg/kg	7.84
Celery	Raw		1,305.97	mg/kg	1.57
Lettuce, looseleaf	Raw		3,000.00	mg/kg	10.12
Potatoes	Raw, flesh and skin		936.31	mg/kg	6.65
Based on 81.06% of dietary ingredients. Total:			906.34	mg/kg	

Nutrient: Vit D3

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	3.33	IU Vit D3/g	85.32

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter. (24.78% DM / 75.22% Water)

iet Name: Gorila Bantu

Apples, with skin	Raw	4.79 mg/kg	0.31
Ananas	Raw	20.98 mg/kg	3.94
Oranges	Raw, w/ peel	28.25 mg/kg	1.34
Carrots	Raw	76.00 mg/kg	9.35
Celery	Raw	60.26 mg/kg	0.87
Lettuce, looseleaf	Raw	66.67 mg/kg	2.69
Potatoes	Raw, flesh and skin	70.53 mg/kg	5.98
Based on 81.06% of dietary ingredients. Total:		75.87 mg/kg	

Nutrient: Pantothenic Acid

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	66.67	mg/kg	68.30
Centrum Multivitamin	Vitamin	Lederle	7,100.00	mg/kg	14.59
Apples, with skin	Raw		3.80	mg/kg	0.50
Ananas	Raw		10.10	mg/kg	3.87
Oranges	Raw, w/ peel		18.64	mg/kg	1.81
Carrots	Raw		16.13	mg/kg	4.05
Celery	Raw		34.70	mg/kg	1.02
Lettuce, looseleaf	Raw		33.33	mg/kg	2.74
Potatoes	Raw, flesh and skin		18.06	mg/kg	3.12
Based on 81.06% of dietary ingredients. Total:			37.21	mg/kg	

Nutrient: Riboflavin

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	13.33	mg/kg	65.53
Centrum Multivitamin	Vitamin	Lederle	1,200.00	mg/kg	11.83
Apples, with skin	Raw		0.87	mg/kg	0.55
Bananas	Raw		3.89	mg/kg	7.14
Oranges	Raw, w/ peel		2.82	mg/kg	1.31
Carrots	Raw		4.83	mg/kg	5.82
Celery	Raw		8.40	mg/kg	1.18
Lettuce, looseleaf	Raw		13.33	mg/kg	5.26
Potatoes	Raw, flesh and skin		1.66	mg/kg	1.38
Based on 81.06% of dietary ingredients. Total:			7.76	mg/kg	

Nutrient: Thiamin

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	12.22	mg/kg	63.27
Centrum Multivitamin	Vitamin	Lederle	1,100.00	mg/kg	11.42
Apples, with skin	Raw		1.06	mg/kg	0.71
Bananas	Raw		1.75	mg/kg	3.38
Oranges	Raw, w/ peel		5.65	mg/kg	2.77
Carrots	Raw		7.94	mg/kg	10.07
Celery	Raw		8.58	mg/kg	1.27
Lettuce, looseleaf	Raw		8.33	mg/kg	3.46
Potatoes	Raw, flesh and skin		4.18	mg/kg	3.65
Based on 81.06% of dietary ingredients. Total:			7.36	mg/kg	

Nutrient: Vit A

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	22.22	IU A/g or RE/g	3.57
Centrum Multivitamin	Vitamin	Lederle	3,570.00	IU A/g or RE/g	1.15
Apples, with skin	Raw		3.50	IU A/g or RE/g	0.07

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter, (24.78% DM / 75.22% Water)

Name: Gorila Bantu

lettuce, looseleaf	Raw	5.00 %	4.44
potatoes	Raw, flesh and skin	0.48 %	0.89
Based on 99.98% of dietary ingredients. Total:		3.45 %	

Nutrient: *Linoleic Acid*

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	3.11	%	87.75
Apples, with skin	Raw		0.54	%	1.97
Bananas	Raw		0.22	%	2.29
Oranges	Raw, w/ peel		0.25	%	0.66
Carrots	Raw		0.55	%	3.79
Celery	Raw		1.29	%	1.04
Lettuce, looseleaf	Raw		0.78	%	1.77
Potatoes	Raw, flesh and skin		0.15	%	0.72
Based on 81.04% of dietary ingredients. Total:			1.35	%	

Nutrient Category: Protein

Nutrient: *Crude Protein*

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	14.00	%	17.21
Leaf-Eater Primate Diet	5M02	Mazuri	25.56	%	62.66
Apples, with skin	Raw		1.18	%	6.37
Bananas	Raw		4.00	%	3.67
Oranges	Raw, w/ peel		7.34	%	1.70
Carrots	Raw		8.44	%	5.07
Celery	Raw		13.99	%	0.98
Lettuce, looseleaf	Raw		21.67	%	4.26
Potatoes	Raw, flesh and skin		9.84	%	4.07
Based on 99.98% of dietary ingredients. Total:			15.55	%	

Nutrient Category: Vitamins

Nutrient: *Biotin*

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	0.32	mg/kg	88.44
Centrum Multivitamin	Vitamin	Lederle	21.00	mg/kg	11.56
Based on 10.51% of dietary ingredients. Total:			0.14	mg/kg	

Nutrient: *Folicin*

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	12.22	mg/kg	84.55
Centrum Multivitamin	Vitamin	Lederle	286.00	mg/kg	3.97
Apples, with skin	Raw		0.17	mg/kg	0.16
Bananas	Raw		0.74	mg/kg	1.92
Oranges	Raw, w/ peel		1.69	mg/kg	1.11
Carrots	Raw		1.15	mg/kg	1.94
Celery	Raw		5.22	mg/kg	1.04
Lettuce, looseleaf	Raw		8.30	mg/kg	4.61
Potatoes	Raw, flesh and skin		0.61	mg/kg	0.71
Based on 81.06% of dietary ingredients. Total:			5.51	mg/kg	

Nutrient: *Niacin*

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	122.22	mg/kg	61.41
Centrum Multivitamin	Vitamin	Lederle	14,000.00	mg/kg	14.11

Diet Nutrient Analysis

Composition of selected nutrients for 1961.99 grams of diet dry matter, (24.78% DM / 75.22% Water)

Diet Name: Gorila Bantu

Nutrient Category: Energy

Nutrient: ME Primate

Feed	Description	Source	Qty	Unit	Contribution %
Leaf-Eater Primate Diet	5M02	Mazuri	3.06	kcal/g	44.28
Apples, with skin	Raw		3.67	kcal/g	6.86
Bananas	Raw		3.57	kcal/g	19.36
Oranges	Raw, w/ peel		2.26	kcal/g	3.10
Carrots	Raw		3.52	kcal/g	12.50
Celery	Raw		2.99	kcal/g	1.24
Lettuce, looseleaf	Raw		3.00	kcal/g	3.49
Potatoes	Raw, flesh and skin		3.75	kcal/g	9.18
Based on 81.04% of dietary ingredients. Total:			2.63	kcal/g	

Nutrient: ME Ruminant

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	2.00	kcal/g	100.00
Based on 18.94% of dietary ingredients. Total:			0.38	kcal/g	

Nutrient Category: Carbohydrates

Nutrient: ADF

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	36.00	%	50.38
Leaf-Eater Primate Diet	5M02	Mazuri	17.78	%	49.62
Based on 29.44% of dietary ingredients. Total:			13.66	%	

Nutrient: Crude Fiber

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	30.80	%	52.85
Leaf-Eater Primate Diet	5M02	Mazuri	13.78	%	47.15
Based on 29.44% of dietary ingredients. Total:			11.14	%	

Nutrient: Lignin

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	8.00	%	100.00
Based on 18.94% of dietary ingredients. Total:			1.53	%	

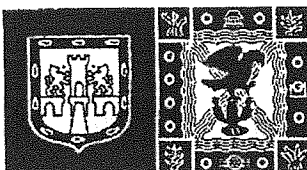
Nutrient: NDF

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	52.00	%	48.72
Leaf-Eater Primate Diet	5M02	Mazuri	27.44	%	51.28
Based on 29.44% of dietary ingredients. Total:			20.40	%	

Nutrient Category: Fat

Nutrient: Crude Fat

Feed	Description	Source	Qty	Unit	Contribution %
Alfalfa Fresh - Medicago sativa	Full Bloom	National Academy Press	2.80	%	15.53
Leaf-Eater Primate Diet	5M02	Mazuri	5.56	%	61.43
Apples, with skin	Raw		2.24	%	3.19
Bananas	Raw		1.86	%	7.71
Oranges	Raw, w/ peel		1.69	%	1.77
Carrots	Raw		1.56	%	4.21
Celery	Raw		2.61	%	0.83



GOBIERNO DEL DISTRITO FEDERAL
Secretaría del Medio Ambiente
Dirección General de Zoológicos de la Ciudad de México
Coordinación de Patología Veterinaria
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas	FECHA: 21-03-03
NOMBRE CIENTÍFICO: <i>Gorilla gorilla</i>	SEXO: Macho
IDENTIFICACIÓN: "Bantú"	EDAD:
ALOJADO EN: Bosque tropical	

COPROPARASITOSCÓPICO EN SERIE DE TRES

RESULTADO:

Se observaron trofozoitos de *Balantidium* sp. 3 a 4 por campo

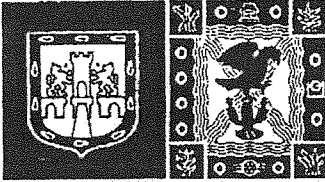
OBSERVACIONES: Las muestras se recolectaron los días 16, 20 y 21 de marzo.

ATENTAMENTE

**QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO**

ICRR

Zoológico de Chapultepec.- Primera Sección del Bosque de Chapultepec, Colonia San Miguel Chapultepec. C.P. 11850,
México, D.F., Tel.: 5553-6263 Ext. 2212 y 2213, Fax Ext. 2005



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Secretaría del Medio Ambiente
Dirección General de Zoológicos de la Ciudad de México
Coordinación de Patología Veterinaria
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas	FECHA: 31-03-03
NOMBRE CIENTÍFICO: <i>Gorilla gorilla</i>	SEXO: Macho
IDENTIFICACIÓN: "Bantú"	EDAD:
ALOJADO EN: Bosque tropical	

COPROPARASITOSCÓPICO EN SERIE DE TRES

RESULTADO:

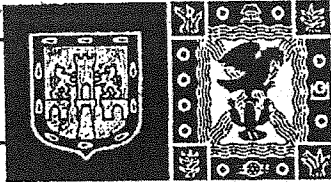
Se observaron trofozoitos de *Balantidium* sp. 1 a 3 por campo

OBSERVACIONES: Las muestras se recolectaron los días 21, 28 y 30 de marzo.

ATENTAMENTE

**QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO**

ICRR



México, D.F., 2 de abril de 2003

PROTOCOLO DE MANEJO Y RECOLECCIÓN DE MUESTRAS DE 1.0 GORILA "BANTÚ"

3 de abril del 20023

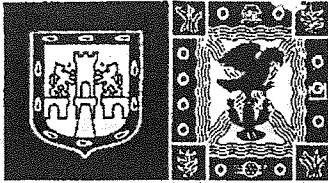
- 1.- No administrar ningún tipo de alimento hasta las 11:00 hrs.
- 2.- Bantú permanecerá en la casa de noche durante las 24 horas.
- 3.- Recolección y congelación (área de patología) de muestras de orina y heces del día anterior.
- 4.- Administrar 1.0 ml de Cortisol por vía oral a las 8:30 hrs.
- 5.- Aplicación intramuscular de 2.2 ml de ACTH por inyección remota.
- 6.- Recolección y congelación de todas las muestras de orina y heces de las 8:30 hasta las 20:00 hrs. Todas las muestras deberán ser numeradas en orden progresivo y marcadas con plumón indeleble de acuerdo al número correspondiente del registro anexo.

4 y 5 de abril del 2003

- 1.- Bantú permanecerá en casa de noche y/o casa de día según convenga para facilitar la recolección de muestras. Se le proporcionará agua y alimento de manera rutinaria.
- 2.- Recolección y congelación (área de patología) de muestras de orina y heces del día anterior.
- 3.- Recolección y congelación de todas las muestras de orina y heces de las 8:30 hasta las 20:00 hrs. Todas las muestras deberán ser numeradas en orden progresivo y marcadas con plumón indeleble de acuerdo al número correspondiente del registro anexo.

The proposal for the ACTH test in gorillas :

Completed for the gorilla study at St. Louis. Basically urine and feces are collected in the morning and afternoon on two days before the test...the day of the test urine and feces are collected in the morning - then in the morning ACTH is given by dart or hand injection followed by deuterium labelled cortisol by mouth. Following administration of drugs a sample from each urination and each defecation is taken and frozen. During the night - the next morning a sample from each fecal pile and each urine pool is taken. This continues for 4 days. The goal is to find the cortisol metabolite present in the feces and the determine the time of excretion following the ACTH stimulation.



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Secretaría del Medio Ambiente
Dirección General de Zoológicos de la Ciudad de México
Coordinación de Patología Veterinaria
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas FECHA: 15-04-03
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: Macho
IDENTIFICACIÓN: "Bantu" EDAD:
ALOJADO EN: Bosque tropical


COPROPARASITOSCÓPICO EN SERIE DE TRES

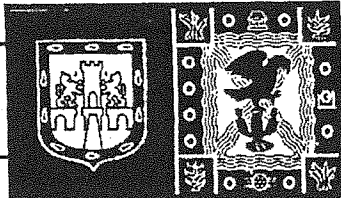
RESULTADO:

Se observaron trofozoitos de *Balantidium* sp.1 a 3 por campo.

OBSERVACIONES: Se emplearon los métodos de flotación de Faust y el directo.
Las muestras se recolectaron los días 12, 13 y 14 de abril.

ATENTAMENTE


QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO



México, D.F. 22 de Abril , 2003.

Para: Dra. Perla Cifuentes Calderón
Subdirector de Bioética

De: MVZ Itzel Yáñez Muñoz
Coordinadora del Área de Patología

Asunto: Resultados de CPS Gorila de tierras bajas

De acuerdo a la conversación sostenida el día de ayer, hago de su conocimiento los resultados obtenidos de los estudios coproparasitológicos realizados al ejemplar macho de Gorila de Tierras bajas "Bantú", en fechas recientes, en colectas aisladas y seriadas.

Fecha	Resultado
16-03-03	Trofozoitos de <u>Balantidium</u> 3 a 4 por campo
Seriada (2 días)	Trofozoitos de <u>Balantidium</u> 1 a 3 por campo
21-03-03	
Seriada de 3 días	Trofozoitos de <u>Balantidium</u> 1 a 3 por campo
31-03-03	
Seriadas (3 días)	Trofozoitos de <u>Balantidium</u> 1 a 3 por campo
14-04-03	

Esperando que esta información le sea de utilidad, quedo de usted.

Atentamente

c.c.p. Dr. Javier Ojeda Chávez. Encargado del Bioma de Bosque Tropical. Zoológico de Chapultepec "Alfonso L. Herrera".

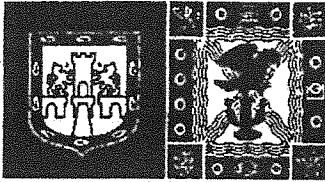
INTERNATIONAL GORILLA STUDBOOK

CURRENT

MIDDLE AND SOUTH AMERICAN

POPULATION

31 DECEMBER 2004



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Secretaría del Medio Ambiente
Dirección General de Zoológicos de la Ciudad de México
Coordinación de Patología Veterinaria
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas	FECHA: 04-01-05
NOMBRE CIENTÍFICO: <i>Gorilla gorilla</i>	SEXO: Macho
IDENTIFICACIÓN: "Bantú"	
ALOJADO EN: Bosque tropical	

COPROPARASITOSCÓPICO EN UNA MUESTRA

RESULTADO:

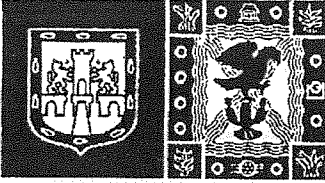
Trofozoitos de *Balantidium* sp. 0 a 1 por campo.

OBSERVACIONES: Se utilizaron los métodos de flotación Faust y directo.

ATENTAMENTE


QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO

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NOMBRE COMÚN: Gorila de tierras bajas FECHA: 18-01-06
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: Macho
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

COPROPARASITOSCÓPICOS

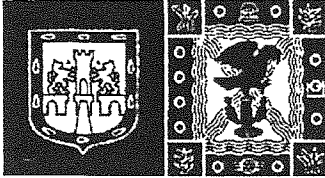
FECHA	RESULTADO:
18-01-06	NEGATIVO
22-01-06	NEGATIVO
23-01-06	NEGATIVO
24-01-06	Trofozoitos de <i>Balantidium</i> sp. 0 a 1 por campo.
26-01-06	NEGATIVO
27-01-06	Huevos de <i>Ancylostoma</i> sp escasos. Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
28-01-06	Huevos de <i>Ancylostoma</i> sp escasos. Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
29-01-06	NEGATIVO
30-01-06	NEGATIVO
31-01-06	NEGATIVO

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

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Coordinación de Patología Veterinaria
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas FECHA: 01-02-06
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: Macho
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

COPROPARASITOSCÓPICOS

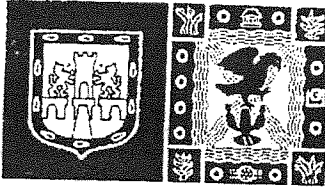
FECHA	RESULTADO:
01-02-06	NEGATIVO
02-02-06	Huevos de <i>Ancylostoma</i> sp escasos.
03-02-06	Huevos de <i>Ancylostoma</i> sp escasos.
04-02-06	NEGATIVO
06-02-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo. Huevos de <i>Ancylostoma</i> sp escasos.
07-02-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
08-02-06	NEGATIVO
11-02-06	NEGATIVO
12-02-06	NEGATIVO
13-02-06	NEGATIVO
14-02-06	NEGATIVO
15-02-06	Huevos de <i>Ancylostoma</i> sp escasos.

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

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Responsable del Laboratorio Clínico

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NOMBRE COMÚN: Gorila de tierras bajas
NOMBRE CIENTÍFICO: *Gorilla gorilla*
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

FECHA: 01-04-06
SEXO: 1.0.0

COPROPARASITOSCÓPICOS

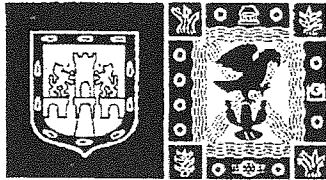
FECHA	RESULTADO:
01-04-06	NEGATIVO
02-04-06	NEGATIVO
03-04-06	NEGATIVO
04-04-06	NEGATIVO
05-04-06	NEGATIVO
06-04-06	NEGATIVO
07-04-06	Huevos de <i>Ancylostoma</i> sp escasos.
08-04-06	Huevos de <i>Ancylostoma</i> sp escasos.
09-04-06	Huevos de <i>Ancylostoma</i> sp escasos.
10-04-06	NEGATIVO
11-04-06	NEGATIVO
12-04-06	NEGATIVO
14-04-06	NEGATIVO
15-04-06	NEGATIVO

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

RRR



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Coordinación de Patología Veterinaria,
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas FECHA: 16-04-06
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: 1.0.0
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

COPROPARASITOSCÓPICOS

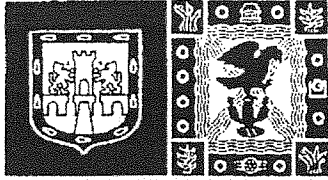
FECHA	RESULTADO:
16-04-06	NEGATIVO
17-04-06	NEGATIVO
19-04-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
20-04-06	Trofozoitos de <i>Balantidium</i> sp 0 a 2 por campo.
21-04-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
25-04-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
26-04-06	NEGATIVO
27-04-06	NEGATIVO
28-04-06	NEGATIVO
29-04-06	NEGATIVO
30-04-06	Huevos de <i>Ancylostoma</i> sp.

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

BORR



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Secretaría del Medio Ambiente
Dirección General de Zoológicos de la Ciudad de México
Coordinación de Patología Veterinaria
Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas FECHA: 01-05-06
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: 1,0,0
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

COPROPARASITOSCÓPICOS

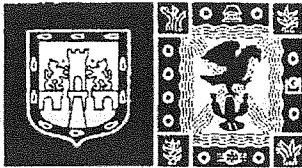
FECHA	RESULTADO:
01-05-06	NEGATIVO
02-05-06	NEGATIVO
03-05-06	NEGATIVO
04-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 2 por campo.
05-05-06	NEGATIVO
06-05-06	NEGATIVO
07-05-06	NEGATIVO
08-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
14-05-06	Trofozoitos de <i>Balantidium</i> sp 1 a 3 por campo.

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

J.C.R.R.



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Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas FECHA: 12-05-06
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: 1.0.0
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

COPROPARASITOSCÓPICO EN UNA MUESTRA

RESULTADO:

POSITIVO

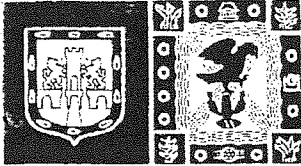
Trofozoitos de *Balantidium* sp 4 a 6 por campo.

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

B.C.R.R.



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Patología Clínica

NOMBRE COMÚN: Gorila de tierras bajas FECHA: 15-05-06
NOMBRE CIENTÍFICO: *Gorilla gorilla* SEXO: 1.0.0
IDENTIFICACIÓN: N.P. "Bantú"
ALOJADO EN: Bioma bosque tropical

COPROPARASITOSCÓPICOS

FECHA	RESULTADO:
16-05-06	NEGATIVO
18-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 3 por campo.
19-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo. Huevos de <i>Ancylostoma</i> sp escasos.
20-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 2 por campo.
21-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 3 por campo. Huevos de <i>Ancylostoma</i> sp escasos.
22-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 2 por campo. Huevos de <i>Ancylostoma</i> sp escasos.
23-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 3 por campo.
24-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 2 por campo. Huevos de <i>Ancylostoma</i> sp escasos.
26-05-06	NEGATIVO
27-05-06	NEGATIVO
28-05-06	NEGATIVO
29-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo.
30-05-06	NEGATIVO
31-05-06	Trofozoitos de <i>Balantidium</i> sp 0 a 1 por campo. Huevos de <i>Ancylostoma</i> sp escasos.

OBSERVACIONES: Se utilizaron los métodos de flotación de Faust y directo.

ATENTAMENTE

Q.F.B. MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

BURE



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Dirección General de Zoológicos y Vida Silvestre
Dirección Técnica y de Investigación
Coordinación del Área de Patología Veterinaria

RESULTADO: LC07-1116

NOMBRE COMÚN: Gorila de tierras bajas
NOMBRE CIENTÍFICO: *Gorilla gorilla gorilla*.
IDENTIFICACIÓN: N.P. "Bantú"
UBICACIÓN: Zoológico Chapultepec/Bosque tropical

FECHA: 28-08-07
SEXO: 1.0.0

COPROPARASITOSCÓPICO EN UNA MUESTRA

RESULTADO:

POSITIVO

Trofozoitos de *Balantidium* sp 1 a 2 por campo.

OBSERVACIONES: La muestra se procesó utilizando los siguientes métodos: concentración por flotación de Faust y observación directa.

ATENTAMENTE

**QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO**





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Dirección General de Zoológicos y Vida Silvestre
Dirección Técnica y de Investigación
Coordinación del Área de Patología

RESULTADO: LC07-1116

NOMBRE COMÚN: Gorila de tierras bajas	FECHA: 30-08-07
NOMBRE CIENTÍFICO: <i>Gorilla gorilla gorilla</i>	SEXO: 1.0.0
IDENTIFICACIÓN: N.P. "Bantú"	
UBICACIÓN: Zoológico de Chapultepec/Bosque tropical	

EXÁMEN BACTERIOLÓGICO

TIPO DE MUESTRA: heces.

RESULTADO:

Se desarrollaron colonias de *Proteus* sp en cantidad moderada.


ANTIBIOGRAMA

CEFALOTINA	R	CEFOTAXIMA	+++
CEFTAZIDIMA	+++	GENTAMICINA	+++
ERITROMICINA	R	CEFUROXIMA	+++
AMPICILINA	R	PEFLOXACINA	+++
TETRACICLINA	+++	DICLOXACILINA	R
TRIMETROPIM-SULFAMETOXAZOL	R	PENICILINA	R

Muy sensible = +++
Sensible = ++
Poco sensible = +
Resistente = R

OBSERVACIONES: para el aislamiento se emplearon los siguientes medios de cultivo: caldo selenito, MacConkey, Salmonella- Shigela, XLD, para el antibiograma se emplea el medio de Mueller-Hinton con el respectivo sensidisco.

ATENJAMENTE


QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO

Coordinación del Área de Patología, Sección del Bosque de Chapultepec, Col. San Miguel Chapultepec,
C.P. 04510, Deleg. Miguel Hidalgo, México D.F., Tel. 5533 4263 Ext. 2312





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 Dirección General de Zoológicos y Vida Silvestre
 Dirección del Zoológico de Chapultepec
 Coordinación de Proyectos de Terapéutica y Reproducción y
 de Medicina Preventiva y Nutrición.

FORMATO PARA LA CONTENCIÓN QUÍMICA DE ANIMALES SILVESTRES

ECHA: 16-08-10
 A.V.Z.(s): JMV

DATOS DEL ANIMAL

NOMBRE COMÚN Y PROPIO: GORILA DE TIERRAS BAJAS "BANTU"
 NOMBRE CIENTÍFICO: Gorilla gorilla gorilla MARCAJE: _____
 EXO: 4 EDAD: 18 AÑOS PESO CALCULADO: 200 kg PESO REAL: _____
 EÑAS PARTICULARES: _____ ALBERGUE: _____
 ÁRMACOS UTILIZADOS: _____

Nombre comerc/Principio activo	Concentración	Dosis (mg/kg)	Mg. totales	ml. totales	Via/ método de administración
<u>ZOLETIL</u>	<u>100</u>	<u>4.5</u>	<u>900</u>		<u>IM</u>
<u>HALDOL- HALOPERIDOL</u>	<u>2mg/ml</u>		<u>40ug</u>	<u>20 ml</u>	

HISTÓRICA DEL PROCEDIMIENTO:

Hora de inicio:						Hora de finalización:
Referencia	SO2	Pulso	F.C.	F.R.	Temp.	Observaciones
(hrs:min)	%		/min	/min.	°C	
0						Inyección dando y se lo quito inmediatamente
0						Inyección glútea todo lg.
02						Signo involuntario y golpea la puerta de seguridad
04						Se mueve al fondo del pasto buscando
07						se observa al fondo, tambaleándose, se tumba y luego estornuda
10				32		Se movió la manivela.
12						Se observa.
13						aplicada 2 ml Zoletil. / respiración
14						sonidos - roncados por la respiración.
17				28		
18						Se acomodó en su dormitorio.
20				32		
23					39.6	
25				99		aplicad Finadine 4.4 ml.
26						Intento tomar muestra sanguínea
27				89	28	
28					32	
32				97	39.1	aplicar chy, 068-259-310.
33					30	
37					32	Roncados
40						
43						

PC FR TB

0:44

Toma muestra: Sa
Hg, Q.S., Sero.

0:44

32

0:53

atropina 0.04mg/kg.
Ronguras y sonido según
a presencia de saliva.
sonidos - tos, intento de
vómito.

0:55

1:00

24

Movio la cabeza.

1:04

Intenta levantarse.

1:08

Se volteo.

1:18

24

posición esternal.

1:27

Continúa en posición esta

1:46

Se empieza a levantar.

2:30

Se sienta. Pero al poco
vuelve a caer. Se queda
en decúbito dorsal.

3:10 (8:20pm)

Trata de incorporarse durante
varios minutos. Se queda
sentado.

9:43 Se estimula, permanece Sentado S

min, se echa nuevamente

10:40 Se sube a la tarima

11:22 Continúa en la tarima, ~~se~~ sentado y en esternal
Dormido

11:00 Se observa vómito en la tarima, + alerta

2:54 Alerta en la tarima, se le apaga la luz, queda tranquilo
descansando.

6:30 Alerta en la tarima

7:05 Se observa vómito en poca cantidad



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 Dirección Técnica y de Investigación
 Coordinación del Área de Patología

L10-1182

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	16-08-10
NOMBRE CIENTÍFICO:	Gorilla gorilla	SEXO:	1,0,0
IDENTIFICACIÓN:	NE: "BANTU"		

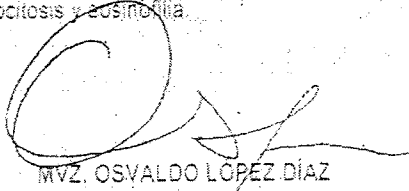
HEMOGRAMA

FORMULA ROJA		
	Resultado	Valores de referencia ISIS
Eritrocitos x 10 ⁶ /pl	6.21	4.07-5.21
Hemoglobina g/dl	15.7	11.2-14.0
Hematocrito %	51	35.1-43.9
VGM f	82.1	77-91.4
HGM pg	25.3	25.1-29.5
CHGM g/dl	30.8	29.7-34.7
VSG mm/hr		
Anormalidades:		

FORMULA BLANCA			
	Resultado		Valores de referencia ISIS
	Porcentaje	Absolutos	Absolutos
Leucocitos x10 ⁶ /ul	-----	8.750	4.907-11.831
Neutrófilos:			
segmentados	65	6.688	2.089-8.547
en banda	0	0.000	0.0-0.381
Linfocitos	22	1.925	1.221-3.805
Monocitos	8	0.700	0.056-0.620
Eosinófilos	5	0.438	0.0-3.23
Basófilos	0	0.000	0.0-0.80
Anormalidades: hipersegmentación			

Proteínas plasmáticas g/dl:	9
Otros:	Plaquetas

Comentarios: Fórmula blanca: Policitemia relativa asociada a hemoconcentración.
 Fórmula blanca: Monocitosis y eosinofilia


 MVZ. OSVALDO LOPEZ DIAZ



Ciudad de México
Capital en Movimiento

Secretaría del Medio Ambiente
Dirección General de Zoológicos y Vida Silvestre
Dirección Técnica y de Investigación
Coordinación del Área de Patología

NOMBRE COMUN:	Gorila de tierras bajas	FECHA:	17-08-2010
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	MACHO
IDENTIFICACIÓN:	N.P. "BANTU"		
ALOJADO EN:	Bioma bosque tropical		

QUÍMICA SANGUÍNEA

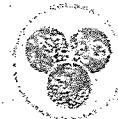
		RESULTADO:	VALORES DE REFERENCIA: ISIS* Machos 8- 20 años.
GLUCOSA	mg/dl	72	59-89
UREA	mg/dl	18	7-14
CREATININA	mg/dl	2.1	0.9-1.5
ACIDO ÚRICO	mg/dl	2.8	0.8-2
COLESTEROL	mg/dl	321	211-331
COLESTEROL HD	mg/dl	161	68-148
COLESTEROL LD	mg/dl	142	104-220
TRIGLICERIDOS	mg/dl	92	48-168
PROTEINA TOTAL	g/dl	9.5	6.8-8
ALBUMINA	g/dl	4.4	3.3-4.3
BILIRRUBINA DIRECTA	mg/dl	0.38	0.0-0.2
BILIRRUBINA INDIRECTA	mg/dl	0.75	0.2-0.6
GAMAGLUTAMIL TRANSFERASA	U/L	9	0.0-60
ALANINA AMINOTRANSFERASA	U/L	49	15-49
ASPARTATO AMINOTRANSFERASA	UI	74	16-54
FOSFATASA ALCALINA	UI	513	106-610
LACTATO DESHIDROGENASA	UI	1431	136-1082
GLOBULINA	g/dl	5.1	3.1-4.3
AMILASA	U/L	38	13-46
CALCIO	mg/dl	10	9-10
FOSFORO	mg/dl	3.8	3.3-4.7
POTASIO	mmol/L	4.7	3.7-4.7
SODIO	mmol/L	151	134-140
CORO	mmol/L	110	96-104
MAGNESIO	mg/dl	1.1	1.43-1.99
LIPASA	U/L	30	0.0-47
RELACION A/G		0.86	

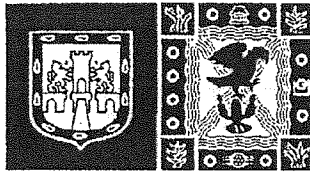
OBSERVACIONES: Azotemia prerrenal, hiperuricemia, hiperproteinemia e hiperalbuminemia asociada a hemoconcentración. Hiperbilirubinemia, incremento de AST, LDH, globulinas, hipernatremia, hipercloremia no relevante debido a hemodilisis. Disminución de magnesio sin relevancia diagnóstica.

ATENTAMENTE

MVZ OSVALDO LOPEZ DIAZ

MVZ. IGNACIO RANGEL RODRIGUEZ





BITÁCORA DE MANEJO

HOJA: 1

Nombre común: Gorila de Tierras Bajas Nombre científico: Gorilla gorilla
 Nombre propio: Bambú Identificación: studbook: 1193/608
 Fecha de inicio: 11/nov/01 Responsable: Jorge Paredes / Javier Ojeda

Fecha / Hora	Observaciones	MVZ.
9/nov/01	El guarda animal reportó que la orina estaba muy concentrada. se tomó una muestra del piso de casa de noche. Resultado normal	Jorge Paredes Javier Ojeda.
12/enero/02	Se inició tratamiento con Ketoconazol, para tratamiento de dermatofitos. (3 semanas) 300 mg VO c/24 hrs.	Jorge Paredes Javier Ojeda
25/ene/02	Continúa tratamiento c/ Ketoconazol. Se realiza EGO, de control, ya que reportaron los cuidadores un color rojizo en orina.	J. Paredes J. Ojeda.
16/03/03	Se reportó con heces flojas - Balantidium	
7/mar/03	balanza digital dentro de jaula de contención.	
20/03/03	Presenta diarrea c/moco y depresión. Desparasitación con Metronidazol Hoja de Des p.	ANC
21/03/03	NO quiso tomar el Flagylase. consume Motrin una tableta	ANC/Ojeda/Silami
3/abr/03	Se le administra cortisol marcado por vía oral, como parte de un estudio para determinación del mismo en orina y heces. Se mantiene dentro de casa de noche para recolectar las muestras	JOCH
4/abr/03	Se le inyectan 176 Unidades de corticotropina (ACTH), como parte del mismo estudio (ver hoja anexo). Se aplica con dardo, IM, en hombro derecho. Producto: H.P. Acthar Gel (80 U/ml) Lab. Questcor Cortisol: (cortisol-9,12,12-d3, Lab. Cambridge Isotope)	JOCH
5/mar/04	Peso: 203 kg (balanza digital en jaula de contención)	J. Ojeda.
01/ene/05	Presentó diarrea. Consumo de alimento normal. Se mantendrá en observación.	
03/ene/05	Continúa con excremento pastoso. No consume parte de las zanahorias y las manzanas. Se inicia terapia antiparasitaria con metronidazol (30 mg/kg VO c/24 hrs por 7 días)	J. Ojeda
	Peso real 212 kg	

Fecha / Hora	Observaciones	MVZ.
04/ene/05	No consume todo el medicamento (mal sabor). El coproparasitoscópico muestra <u>Balantidium</u> 0-1 por campo. Se cambia la presentación del medicamento a un jarabe que consume mejor.	
05/ene/05	Consumo 2/3 partes de la dieta. Comportamiento normal, continúa con diarrea. Consumo un poco más de la mitad de la dosis del metronidazol.	
06/ene/05	Ya no acepta el medicamento. Apetito normal.	
08/ene/05	Se suspende la medicación. Excremento de apariencia normal	J. Greda
25/ene/05	Peso: 215 Kg (báscula digital)	
21/abr/06	Peso: 224 Kg (báscula digital)	
02/ENE/08	DURANTE RECORRIDO MATUTINO, SE LE ESCUCHA TOSER - TOS PRODUCTIVA - ES LA 1ª VEZ Q' SE ESCUCHA	XRY
03/ENE/08	DURANTE RECORRIDO MAT. SE OBS. DEPRIMIDO Y LA TOS HA EMPEORADO EN FRECUENCIA Y PRODUCTIVIDAD, NAH DESCARGA NASAL, SE INICIA TX. PREV. C/CLAVANOR Y AMBROXOL	NO INTERACTUA C/ARILA XRY
04/ENE/08	NAH NO SE TOMA MEDICAMENTO Y SE OBS. NAH DEPRIMIDO, HIPOREXIA. POR LO Q' SE DECIDE APLICAR BENCETACIL 1'200,000 IM A DOSIS D' 11000U/KG TOMANDO SU ÚLTIMO PESO 224	HIPOREXIA XRY
05/ENE/08	BENCETACIL 1'200,000 IM MPI /NO INTERACTUA C/ARILA.	XRY
06/ENE/08	MEJORA DE ANIMO, COME CASI TODO SU ALIMENTO BENCETACIL 1'200,000 IM MPI - (CLAVANOR EN ALIMENTO) NO INTERACTUA C/ARILA	XRY
07/ENE/08	DEJA ALIMENTO C/ MEDICACION (CLAVANOR) LO DEMÁS LO CONSUME COMPLETO. MEJORA ANIMO, PERO INTERACTUA AUN CON ARILA.	
07/feb/10	Peso: 217 Kg (báscula eléctrica)	
01/mar/10	Se considera a Bantú con sobrepeso. Se inicia cambio de dieta para bajarlo de peso.	
abr/10	Bantú ha tenido poca aceptación de la nueva dieta. No consume los vegetales. Inició con conductas reeducadas, arrancándose el pelo de ambos antebrazos y hombros.	
	Se mantiene en observación.	

40533



Secretaría del Medio Ambiente
Dirección General de Zoológicos y Vida Silvestre
Coordinación Técnica y de Investigación
Coordinación del Área de Patología



RESULTADO L13-0111

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	28-01-13
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	Microchip avid 068*259*310 N.P. "Bantú"		
UBICACIÓN:	Zoológico Chapultepec/ Bosque tropical		

COPROPARASITOSCÓPICO EN SERIE DE TRES

TIPO DE MUESTRA: HECES.

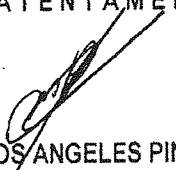
RESULTADO:

POSITIVO

Trofozoitos de *Balantidium* sp en escasa cantidad.

OBSERVACIONES: Las muestras se procesaron empleando la técnica de flotación de Faust y observación directa.
Las muestras se recolectaron los días 28, 29 y 30 de enero.

ATENTAMENTE


QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
RESPONSABLE DEL LABORATORIO CLÍNICO



Secretaría del Medio Ambiente
 Dirección General de Zoológicos y Vida Silvestre
 Coordinación Técnica y de Investigación
 Coordinación del Área de Patología



RESULTADO: L13-0111

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	28-01-13
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	Microchip avid 068*259*310 N.P. "Bantú"		
UBICACIÓN:	Zoológico Chapultepec/ Bosque tropical		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: HECES.

RESULTADO:

Se desarrollan colonias de *Escherichia coli* en cantidad moderada. (1)
 Se desarrollan colonias de *Shigella* sp en cantidad moderada. (2)

ANTIBIOGRAMA (2)

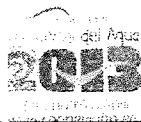
CEFALOTINA	R	CEFTRIAXONA	3+
LEVOFLOXACINA	3+	GENTAMICINA	2+
ERITROMICINA	1+	CEFUROXIMA	3+
AMPICILINA	R	CEFEPIME	3+
TETRACICLINA	2+	DICLOXACILINA	R
TRIMETROPIM-SULFAMETOXAZOL	R	PENICILINA	R

Muy sensible = 3+
 Sensible = 2+
 Poco sensible = 1+
 Resistente = R

OBSERVACIONES: (1) Sin antibiograma por ser colonizador intestinal.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 RESPONSABLE DEL LABORATORIO CLÍNICO



Calle Chivatito s/n; Jard. Sección del Bosque de Chapultepec.
 Col. San Miguel Chapultepec. C.P. 11850. Deleg. Miguel Hidalgo,

sma.df.

zoológicos.df.



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 Dirección General de Zoológicos y Vida Silvestre
 Coordinación Técnica y de Investigación
 Coordinación de Patología



RESULTADO: L14-0945

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	21-07-14
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	Macho
IDENTIFICACIÓN:	N.P. "Bantú"		
LOCALIZADO EN:	Zoológico Chapultepec/Bosque tropical		

COPROPARASITOSCÓPICO EN UNA MUESTRA

TIPO DE MUESTRA: Excremento.

RESULTADO:

POSITIVO

Trofozoitos de *Balantidium* sp escasos.
 Huevos de *Strongyloides* sp escasos.

OBSERVACIONES: La muestra se procesa empleando la técnica de flotación de Faust y observación directa.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 Responsable del Laboratorio Clínico

Prosectores: TLC Zarate López Maria Fernanda
 MVZ Illescas Ortiz Amaury



Secretaría del Medio Ambiente
Dirección General de Zoológicos y Vida Silvestre
Dirección Técnica y de Investigación
Coordinación de Patología



RESULTADO L14-1307

NOMBRE COMÚN: Gorila de tierras bajas	FECHA: 10-10-14
NOMBRE CIENTÍFICO: <i>Gorilla gorilla gorilla</i>	SEXO: Macho
IDENTIFICACIÓN: AVID 068*259*310 N.P. "Bantú"	
LOCALIZADO EN: Zoológico de Chapultepec/ Bosque tropical	

COPROPARASITOSCÓPICO EN UNA MUESTRA

TIPO DE MUESTRA: Excremento consistencia líquida

RESULTADO:

POSITIVO

Trofozoitos de *Balantidium* sp en cantidad moderada.

OBSERVACIONES: NINGUNA.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

Calle Chivatito s/n. 1a. Sección del Bosque de Chapultepec,
Col. San Miguel Chapultepec, C.P. 11850, Deleg. Miguel Hidalgo,
México D.F., Tel. 55536263 Ext. 2212

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zoológicos.df.mex.mx



Secretaría del Medio Ambiente
 Dirección General de Zoológicos y Vida Silvestre
 Dirección Técnica y de Investigación
 Coordinación de Patología



L14-1307

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	10-10-14
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla gorilla</i>	SEXO:	Macho
IDENTIFICACIÓN:	AVID 068*259*310 N.P. "Bantú"		
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		

COPROPARASITOSCÓPICO EN UNA MUESTRA

TIPO DE MUESTRA: Excremento consistencia líquida

RESULTADO:

POSITIVO
 Trofozoitos de *Balantidium* sp en cantidad moderada.

OBSERVACIONES: NINGUNA.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 Responsable del Laboratorio Clínico



"2014, Año de Octavio Paz"

RESULTADO: L15-0072

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	21-01-15
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	Macho
IDENTIFICACIÓN:	AVID 068*259*310 N.P. "Bantú"	EDAD:	23 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	Ejemplar positivo a <i>Balantidium</i> . Se realizó desparasitación y se solicita cps de control.		

COPROPARASITOSCÓPICO EN UNA MUESTRA

TIPO DE MUESTRA: Excremento.

RESULTADO:

NEGATIVO

OBSERVACIONES: NINGUNA.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 Responsable del Laboratorio Clínico





"2014, Año de Octavio Paz"
 FECHA: 21-01-15

RESULTADO: L15-0072

NOMBRE COMÚN: Gorila de tierras bajas	SEXO: Macho	EDAD: 23 años.
NOMBRE CIENTÍFICO: <i>Gorila gorilla</i>	IDENTIFICACIÓN: N.P. "Bantú" AVID 068*259*310	
HISTORIA CLÍNICA: ejemplar positivo a <i>Balantidium</i> . Se realizó desparasitación y se solicita examen cps de control. Uriánalisis de control.	FECHA Y HORA DE MUESTREO: 21-01-15 MÉTODO DE RECOLECCIÓN: Micción natural, directo del piso	
LOCALIZADO EN: Zoológico de Chapultepec/ Bosque tropical		

EXAMEN GENERAL DE ORINA

EXAMEN FÍSICO		EXAMEN QUÍMICO		EXAMEN CITOLÓGICO*	
Densidad:	1.023	pH:	9.0	Células epiteliales	
Color:	Amarillo paja	Glucosa:	Negativo	Escamosas:	0-1 por campo
Olor:	Sui generis	Bilirrubina:	Negativo	Transición:	No se observan
Apariencia:	Turbio +	Cetona:	Negativo	Renales:	No se observan
Sedimento:	2+	Sangre:	Negativo	Cilindros:	No se observan
		Proteína:	1+	Eritrocitos:	1-2 por campo
				Leucocitos:	1-2 por campo
				Bacterias:	3+, cocos y bacilos
				Cristales:	No se observan
				Otros:	Fibras vegetales 2+

*Promedio de cinco campos en seco fuerte.
 Escala de cruces: 1+ escaso, 2+ moderado y 3+ abundante

OBSERVACIONES: Los hallazgos obtenidos no son de relevancia diagnóstica, pues se asocian al método de recolección de la muestra.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 Responsable del Laboratorio Clínico

MVZ EDUARDO PALENCIA SILVA





SECRETARÍA DEL MEDIO AMBIENTE
 DIRECCIÓN GENERAL DE ZOOLOGICOS Y VIDA SILVESTRE
 DIRECCIÓN TÉCNICA Y DE INVESTIGACIÓN
 Coordinación de Patología

CDMX
 CIUDAD DE MÉXICO
 190 años

"2014, Año de Octavio Paz"

RESULTADO: L15-0072

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	21-01-15
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	Macho
IDENTIFICACIÓN:	AVID 068*259*310 N.P. "Bantú"	EDAD:	23 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	Ejemplar positivo a <i>Balantidium</i> . Se realizó desparasitación y se solicita cps de control.		

COPROPARASITOSCÓPICO EN UNA MUESTRA

TIPO DE MUESTRA: Excremento.

RESULTADO:

NEGATIVO

OBSERVACIONES: NINGUNA.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 Responsable del Laboratorio Clínico



AV. CALZADA DE LA PAZ, SECCIÓN DEL ZOOLOGICO DE CHAPULTEPEC
 CDMX, D.F. México, C.P. 04510
 Tel. (55) 53 47 04 ext. 3112

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 zoologicos.df.gob.mx



RESULTADO: L16-0536

NOMBRE COMUN:	Gorila de tierras bajas	FECHA:	12-04-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	AVID 068*259*310	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	Ejemplar diagnosticado previamente con infección por <i>Balantidium</i> .		

COPROPARASITOSCÓPICO EN SERIE DE TRES

TIPO DE MUESTRA: Excremento

RESULTADO:

NEGATIVO

OBSERVACIONES: Las muestras se recolectaron los días 12, 14 y 15 de abril.
Observación directa y flotación de Faust.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

Centro de Diagnóstico y Referencia Epidemiológicos
Instituto de Diagnóstico y Referencia Epidemiológicos
Secretaría de Salud
Av. Cuernavaca 1300, Cuernavaca, Morelos
C.P. 76100



RESULTADO: L16-0536

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	12-04-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	AVID 068*259*310 N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	Ejemplar diagnosticado previamente con infección por <i>Balantidium</i> .		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento (3 muestras)

RESULTADO:

Se desarrollan colonias de:

- *Salmonella* spp en cantidad moderada.

ANTIBIOGRAMA

ANTIBIÓTI CO:	SENSIBILIDAD: *
CEFTIOFÚR	3+
ENROFLOXACINA	3+
TILOSINA	2+
CEFALEXINA	1+
PENICILINA G/ ESTREPTOMICINA	3+
GENTAMICINA	2+
AMOXICILINA	3+
OXITETRACICLINA	3+
SULFADOXINA TRIMETROPIM	3+

MUY SENSIBLE 3+
SENSIBLE 2+
POCO SENSIBLE 1+
RESISTENTE R

OBSERVACIONES: Las muestras se recolectaron los días 12, 14 y 15 de abril.

ATENTAMENTE

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

CD

No. control: L16-0694

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	25-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento

RESULTADO:

Se desarrollan colonias de:

- *Escherichia coli* en escasa cantidad.
- *Serratia* spp en cantidad moderada.

OBSERVACIONES: Sin antibiograma por ser colonizador intestinal.



QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

RESULTADO: L16-0536

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	12-04-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	AVID 068*259*310 N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	Ejemplar diagnosticado previamente con infección por <i>Balantidium</i> .		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento (3 muestras)

RESULTADO:

Se desarrollan colonias de:

- *Salmonella* spp en cantidad moderada.

ANTIBIOGRAMA

ANTIBIÓTI CO:	SENSIBILIDAD:
CEFTIOFUR	3+
ENROFLOXACINA	3+
TILOSINA	2+
CEFALEXINA	1+
PENICILINA G/ ESTREPTOMICINA	3+
GENTAMICINA	2+
AMOXICILINA	3+
OXITETRACICLINA	3+
SULFADOXINA TRIMETROPIM	3+

MUY SENSIBLE 3+
 SENSIBLE 2+
 POCO SENSIBLE 1+
 RESISTENTE R

OBSERVACIONES: Las muestras se recolectaron los días 12, 14 y 15 de abril.

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
 Responsable del Laboratorio Clínico

CD

RESULTADO: L16-0652

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	20-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSÓPICO:

	RESULTADO:
CONSISTENCIA	Líquida
COLOR	Café
OLOR	Inoloro
PRESENCIA DE DETRITUS NO DIGERIDOS	Positivo Presencia de granos de elote sin digerir 2+ Fibras vegetales 1+
MOCO O TEJIDO CONECTIVO	No se observa
PARÁSITOS	No se observan
SANGRE	No se observa

EXAMEN MICROSCÓPICO:

PARÁSITOS *	Positivo Trofozoitos de <i>Balantidium</i> spp 2 a 5 por campo 100 X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 1+
GRASAS NEUTRAS	No se observan
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan

EXAMEN QUÍMICO:

pH	8.0
SANGRE OCULTA EN HECES	Negativo

1+- ESCASAS 2+- MODERADAS 3+- ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA

INTERPRETACIÓN: La consistencia líquida de las heces (diarreicas) junto con la presencia de trofozoitos de *Balantidium*, son hallazgos que se sugieren infección por protozoarios, es conveniente dar seguimiento. Amilorrea por posible disminución en su absorción dada la diarrea. Otros cambios poco relevantes.

OBSERVACIONES: SE RECOMIENDA REMITIR LA DIETA.

QFB. MARÍA DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio clínico

M en MVZ EDUARDO PALÉNIA SILVA
Responsable del diagnóstico

CD

RESULTADO: L16-0657.

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	21-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSÓPICO:

	RESULTADO:
CONSISTENCIA	Pastosa
COLOR	Café- verde
OLOR	Inoloro
PRESENCIA DE DETRITUS NO DIGERIDOS	Positivo
MOCO O TEJIDO CONECTIVO	Presencia de granos de elote sin digerir 2+
PARÁSITOS	Fibras vegetales 2+
SANGRE	No se observa
	No se observan
	No se observa

EXAMEN MICROSCÓPICO:

PARÁSITOS *	Positivo
	Trofozoitos de <i>Balantidium</i> spp 6 a 9 por campo 100 X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva
	Fibras vegetales parcialmente digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 2+
GRASAS NEUTRAS	No se observan
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	Cocos 2+
LEVADURAS	No se observan
CRISTALES	No se observan

EXAMEN QUÍMICO:

pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+ ESCASAS 2+ MODERADAS 3+ ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA

INTERPRETACIÓN: El incremento de trofozoitos por campo 10 x indican infección latente, dar seguimiento. Amilorrrea y presencia de fibras vegetales por posible disminución en su absorción

OBSERVACIONES:

M en MVZ EDUARDO PAZENCIA SILVA
Responsable del diagnóstico

CD

RESULTADO: L16-0660

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	22-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSÓPICO:

	RESULTADO:
CONSISTENCIA	Semi líquida
COLOR	Café verdosa
OLOR	Inolora
PRESENCIA DE DETRITOS NO DIGERIDOS	Positivo Presencia de granos de elote sin digerir 2+ Fibras vegetales 1+
MOCO O TEJIDO CONECTIVO	No se observa
PARÁSITOS	No se observan
SANGRE	No se observa
EXAMEN MICROSCÓPICO:	
PARÁSITOS *	Positivo Huevos de <i>Strongyloides</i> spp 0 a 1 por campo 100 X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 2+ Fibras vegetales digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 1+
GRASAS NEUTRAS	No se observan
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan
EXAMEN QUÍMICO:	
pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+ ESCASAS 2+ MODERADAS 3+ ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA.

INTERPRETACIÓN: La ausencia de trofozoitos de *Balantidium*, sugiere buena respuesta al tratamiento, sin embargo la presencia de fibras vegetales digeridas y parcialmente digeridas, así como la amilorrea son cambios que indican disminución en su absorción persistente. Los escasos huevos de *Strongyloides* indican probable parasitosis ligera.

OBSERVACIONES: SE RECOMIENDA REMITIR LA DIETA.

QFB. MARÍA DE LOS ANGELES PINTADO ESCAMILLA M en MVZ EDUARDO PALENCIA SILVA
 Responsable del Laboratorio clínico Responsable del Diagnóstico

CD

No. control: L16-0660

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	22-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

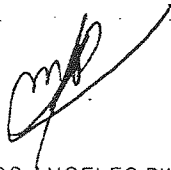
EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento

RESULTADO:

- Se desarrollan colonias de:
- *Escherichia coli* en cantidad moderada.
 - *Edwarsiella tarda* en escasa cantidad.

OBSERVACIONES: Sin antibiograma por ser colonizador intestinal.



QFB MA. DE LOS ANGELES PINTADO ESCAMILLA.
Responsable del Laboratorio Clínico

CD

RESULTADO: L16-0687

NOMBRE COMUN:	Gorila de tierras bajas	FECHA:	24-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSCÓPICO:

	RESULTADO:
CONSISTENCIA	Pastosa
COLOR	Café claro
OLOR	Fétida
PRESENCIA DE DETRITUS NO DIGERIDOS	Positivo Presencia de granos de elote sin digerir 2+ Restos de uvas sin digerir 1+ Fibras vegetales 1+
MOCO O TEJIDO CONECTIVO	No se observa
PARÁSITOS	No se observan
SANGRE	No se observa

EXAMEN MICROSCÓPICO:

PARÁSITOS *	Positivo Trofozoitos de <i>Balantidium</i> spp 0 a 1 por campo 100 X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 2+ Fibras vegetales digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 1+
GRASAS NEUTRAS	Positiva 1+
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan

EXAMEN QUÍMICO:

pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+-. ESCASAS 2+-. MODERADAS 3+-. ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA

INTERPRETACIÓN: Presencia de fibras vegetales, alimento sin digerir, amilorrea todos estos hallazgos se pueden relacionar a la dieta y/o disminución en su absorción por infección latente por *Balantidium*, dar seguimiento.

OBSERVACIONES: SE RECOMIENDA REMITIR LA DIETA.

QFB. MARÍA DE LOS ANGELES PINTADO ESCAMILLA
Responsable del laboratorio clínico

M en MVZ EDUARDO PALENCIA SILVA
Responsable del diagnóstico

CD

No. control: L16-0694

NOMBRE COMÚN: Gorila de tierras bajas
NOMBRE CIENTÍFICO: *Gorilla gorilla*
IDENTIFICACIÓN: N.P. "Bantú"
LOCALIZADO EN: Zoológico de Chapultepec/ Bosque tropical
HISTORIA CLÍNICA: No remitida

FECHA: 25-05-16

SEXO: M

EDAD: 24 años


EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento

RESULTADO:

- Se desarrollan colonias de:
- *Escherichia coli* en escasa cantidad.
 - *Serratia* spp en cantidad moderada.

OBSERVACIONES: Sin antibiograma por ser colonizador intestinal.


QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico



No. control: L16-0698

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	26-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento

RESULTADO:

- Se desarrollan colonias de:
- *Escherichia coli* en escasa cantidad.

OBSERVACIONES: Sin antibiograma por ser colonizador intestinal.

Atentamente

QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

CD

RESULTADO: L16-0716

NOMBRE COMUN:	Gorila de tierras bajas	FECHA:	28-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSCÓPICO:

	RESULTADO:
CONSISTENCIA	Pastosa
COLOR	Café verdoso
OLOR	Fétida
PRESENCIA DE DETRITUS NO DIGERIDOS	Positivo
MOCO O TEJIDO CONECTIVO	Fibras vegetales parcialmente digeridas 2+
PARÁSITOS	No se observa
SANGRE	No se observan

EXAMEN MICROSCÓPICO:

PARÁSITOS *	5-8 Trofozoitos de <i>Balantidium</i> por campo 10x
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 2+ Fibras vegetales digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 1+
GRASAS NEUTRAS	Negativa
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan

EXAMEN QUÍMICO:

pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+.- ESCASAS 2+.- MODERADAS 3+.- ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA

INTERPRETACIÓN: Persistencia de heces pastosas, presencia de fibras vegetales parcialmente digeridas y amilorrea, todos estos hallazgos se asocian probablemente a disminución en su absorción dada la presencia de *Balantidium*

OBSERVACIONES: SE RECOMIENDA REMITIR LA DIETA.

QFB. MARÍA DE LOS ÁNGELES PINTADO ESCAMILLA
Responsable del laboratorio clínico

M en MVZ EDUARDO PALENCIA SILVA
Responsable del diagnóstico

CD

RESULTADO: L16-0717

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	29-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSÓPICO:

	RESULTADO:
CONSISTENCIA	Semiliquida
COLOR	Calé verdoso
OLOR	Ligeramente fétida
PRESENCIA DE DETRITUS NO DIGERIDOS	Positivo Fibras vegetales parcialmente digeridas 2+
MOCO O TEJIDO CONECTIVO	No se observa
PARÁSITOS	No se observan
SANGRE	No se observa

EXAMEN MICROSCÓPICO:

PARÁSITOS *	Trofozoitos de <i>Balantidium</i> spp 2 a 4 por campo 100X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 2+ Fibras vegetales digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 1+ (Gránulos de almidón)
GRASAS NEUTRAS	Negativa
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan

EXAMEN QUÍMICO:

pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+.- ESCASAS 2+.- MODERADAS 3+.- ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA

INTERPRETACIÓN: Heces pastosas, presencia de fibras vegetales parcialmente digeridas, y digeridas, amilorra, todos estos hallazgos están asociados a infección activa por *Balantidium*; sin embargo puede estar atribuido un proceso de incremento de tránsito intestinal por estrés.

OBSERVACIONES: SE RECOMIENDA REMITIR LA DIETA.

QFB. MARÍA DE LOS ÁNGELES PINTADO ESCAMILLA
Responsable del laboratorio clínico

M en MVZ EDUARDO BALENCIA SILVA
Responsable del diagnóstico

CD

RESULTADO: L16-0736

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	30-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSCÓPICO:

	RESULTADO:
CONSISTENCIA	Semiliquida
COLOR	Calé claro
OLOR	Ligeramente fétida
PRESENCIA DE DETRITOS NO DIGERIDOS	Positivo Granos de elote parcialmente digeridos 2+ Fibras vegetales parcialmente digeridas 2+
MOCO O TEJIDO CONECTIVO	No se observa
PARÁSITOS	No se observan
SANGRE	No se observa

EXAMEN MICROSCÓPICO:

PARÁSITOS *	Trofozoitos de <i>Balantidium</i> spp 3 a 6 por campo 100X Huevos de <i>Strongyloides</i> spp 0 a 1 por campo 100X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 2+ Fibras vegetales digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 2+ (Gránulos de almidón)
GRASAS NEUTRAS	Negativa
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan
EXAMEN QUÍMICO:	
pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+- ESCASAS 2+- MODERADAS 3+- ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACION DIRECTA

INTERPRETACIÓN: Heces líquidas, fibras vegetales digeridas y parcialmente digeridas, amilorrea, todos estos hallazgos se asocian a disminución en su absorción por infección activa por *Balantidium*, sin embargo puede estar atribuido un proceso de incremento en el tránsito intestinal por estrés. La presencia de escasos huevos de *Strongyloides* sugieren parasitosis ligera.

QFB. MARÍA DE LOS ÁNGELES PINTADO ESCAMILLA
Responsable del laboratorio clínico

M en MVZ EDUARDO PALENCIA SILVA
Responsable de diagnóstico

CD

No. control: L16-0737

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	31-05-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento

RESULTADO:

Se desarrollan colonias de:

- *Escherichia coli* en escasa cantidad.

OBSERVACIONES: Ninguna.

FIRMA DEL RESPONSABLE



QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

CD

No. control: L16-0752

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	01-06-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN BACTERIOLÓGICO

TIPO DE MUESTRA: Excremento

RESULTADO:

- Se desarrollan colonias de:
- *Escherichia coli* en escasa cantidad.

OBSERVACIONES: Ninguna.



QFB MA. DE LOS ANGELES PINTADO ESCAMILLA
Responsable del Laboratorio Clínico

CD

RESULTADO: L16-0763

NOMBRE COMÚN:	Gorila de tierras bajas	FECHA:	02-06-16
NOMBRE CIENTÍFICO:	<i>Gorilla gorilla</i>	SEXO:	1.0.0
IDENTIFICACIÓN:	N.P. "Bantú"	EDAD:	24 años
LOCALIZADO EN:	Zoológico de Chapultepec/ Bosque tropical		
HISTORIA CLÍNICA:	No remitida		

EXAMEN COPROLÓGICO UNA MUESTRA

EXAMEN MACROSÓPICO:

	RESULTADO:
CONSISTENCIA	Pastosa
COLOR	Café claro
OLOR	Fétida
PRESENCIA DE DETRITUS NO DIGERIDOS	Positivo Granos de elote parcialmente digeridos 1+ Fibras vegetales parcialmente digeridas 2+
MOCO O TEJIDO CONECTIVO	No se observa
PARÁSITOS	No se observan
SANGRE	No se observa

EXAMEN MICROSCÓPICO:

PARÁSITOS *	Trofozoitos de <i>Balantidium</i> spp 0 a 2 por campo 100X
FIBRAS MUSCULARES Y/O VEGETALES	Positiva Fibras vegetales parcialmente digeridas 1+ Fibras vegetales digeridas 2+
ERITROCITOS	No se observan
LEUCOCITOS	No se observan
AMILORREA	Positiva 1+ (células amiláceas)
GRASAS NEUTRAS	Negativa
MOCO O TEJIDO CONECTIVO	No se observa
BACTERIAS	2+
LEVADURAS	No se observan
CRISTALES	No se observan

EXAMEN QUÍMICO:

pH	7.0
SANGRE OCULTA EN HECES	Negativo

1+.- ESCASAS 2+.- MODERADAS 3+.- ABUNDANTES

*FLOTACIÓN DE FAUST Y OBSERVACIÓN DIRECTA

INTERPRETACIÓN: Heces pastosas, presencia de alimento sin digerir, y amilorrea moderada, todos estos resultados están asociados a disminución en su absorción por infección por *Balantidiasis*.

QFB. MARÍA DE LOS ÁNGELES PINTADO ESCAMILLA
Responsable del laboratorio clínico

MC LUZ ELENA ALCARAZ SOSA
Coordinadora de Patología

Historial clínico

1.0.0 gorila de tierras bajas

Gorilla gorilla

microchip AVID 068*259*310, N.P. "Bantú",

29-oct.-09

Tratamiento

Desparasitación con albendazol

07-feb.-10

Observación

Mediante el uso de báscula eléctrica, se obtuvo el peso de los siguientes ejemplares:

Se pesa mediante báscula eléctrica. Peso.- 217 kg

16-ago.-10

Revisión

Poco después de mediodía, el ejemplar escapó de su dormitorio, quedando dentro de la casa de noche, en la zona de cocina. Se realizó contención química de emergencia, para regresarlo a sus instalaciones. Aplicación de tiletamina/zolacepam (5 -7 mg/kg, IM). Toma de muestras sanguíneas para BH y QS y examen físico general.

08-nov.-13

Observación

Se obtuvo el peso corporal mediante el uso de báscula eléctrica, registrando 138 kg

04-feb.-14

Observación

Se realiza pesaje mediante báscula eléctrica, obteniéndose un registro de 248 kg

17-jul.-14

Tratamiento

Presenta diarrea e hiporexia. Se ofrece suspensión de neomicina/caolín, VO, pero no la acepta.

18-jul.-14

Tratamiento

Se inicia antibioterapia con sulfametoxazol/trimetoprim 30 mg/kg, VO, c/24 hrs, por 7 días. Hiporexia. Se le preparan jugos de frutas y vegetales con los ingredientes de su dieta. Acepta bien el medicamento en los jugos o en refresco

21-jul.-14

Observación

Consumo de alimento normal. No hay presencia de diarrea. Ya no se ofrecen licuados. Se continúa la antibioterapia, para cumplir los 7 días

23-jul.-14

Observación

Se reciben los resultados del examen coproparasitológico, resultando positivo a escasos trofozoitos de *Balantidium* y escasos huevos de *Strongyloides*

10-oct.-14

Observación

Toma de muestra para coproparasitológico de control

11-dic.-14

Tratamiento

Desparasitación con metronidazol (15 mg/kg, VO, c/24 hrs), por 3 días

21-ene.-15

Observación

Toma de muestras para coproparasitológico y EGO de control. El coproparasitológico resultó negativo. El EGO no muestra datos relevantes, excepto los relacionados con el método de obtención (micción natural, muestra obtenida del piso del dormitorio)

03-may.-16

Tratamiento

Presenta una lesión en la encía alrededor del incisivo III, inferior izquierdo, El incisivo se observa flojo. Se administra paracetamol (500 mg totales). Consumo de alimento normal, aunque prefiere no masticar de ese lado.

20-may.-16

Tratamiento

Presenta abundante diarrea, muy líquida. No consumió su alimento del día anterior. Se toma muestra para exámenes coprológico y coproparasitológico. Con diagnóstico presuntivo de balantidiasis, se inicia tratamiento con quinfamida (300 mg totales, VO, c/24 hrs por 2 días). Probablemente el ejemplar se estresó debido a las obras de remodelación del albergue contiguo.

22-may.-16

Tratamiento

Se administran lactobacilos, como restauradores de flora. Excremento con mejor consistencia. Ha mejorado el consumo de alimento. El resultado de los exámenes mostró presencia de trofozoitos de Balantidium y amilorrea por posible disminución en su absorción dada la diarrea

23-may.-16

Tratamiento

Hiporexia y signología de cólico. No ha defecado. Se administra butilioscina (20 mg, VO, Buscapina)

25-may.-16

Tratamiento

Presentó diarrea el día de hoy. El coproparasitoscópico mostró abundantes trofozoitos activos de Balantidium. Inicio de administración de tetraciclina (2.5 gramos, VO, c/12 hrs, por 12 días). Peso estimado.- 200 kg

02-jun.-16

Tratamiento

El examen coprológico de control muestra presencia de trofozoitos de Balantidium 0-2 por campo 100x, huevos de Strongyloides 0-1 por campo 100x. Consumo de alimento y actividad normal. Se continúa la terapia con tetraciclina

03-jun.-16

Tratamiento

El examen coprológico de control muestra presencia de trofozoitos de Balantidium 0-2 por campo 100x. Continúa la terapia con tetraciclina

08-ago.-16

Tratamiento

Último día de antibioterapia. Sin signos clínicos de balantidiasis.