University of Wisconsin – School of Veterinary Medicine 2015 Linden Drive, Madison, WI 53706-1102 Phone: 608-263-7600, 800-386-8684; FAX: 608-265-8276

MEDICAL REC #: 123074 **EXAMINATION DATE:** 09/06/11 DISCHARGED: VISIT ID: 1125492 OWNER: Kotoyo Hoshina PATIENT: 5002 Sheboygan Ave Mango ADDRESS: SPECIES: Lapine Apt 120 BREED: Other Lapine (Rabbit) Madison, WI 53705 HOME PHONE: COLOR: Red/White (608) 334-5123 SEX: Castrated Male WORK PHONE: DOB: 09/12/06 WEIGHT: 3.3 Kilograms REFERRING DVM: PHONE: FAX: SERVICE: **Special Species** CLINICIAN(S): D. Keller, DVM, PhD STUDENT(S):

## Current diagnostic impressions:

DIAGNOSIS	COMMENTS
GI stasis	
Non-regenerative anemia	Open: differentials for this problem include blood loss, lack of normal red cell production, or destruction of red blood cells. Based on a positive urine blood test we suspect that blood is being lost via the urinary tract.
History of positive E. cuniculi test and exposure in 2008	No prior clinical signs associated with this
Hematuria (blood in urine)	Noted in urine on repeat urinalysis on 9/5/11

Instructions for care after	discharge:
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FEEDING: Usual diet Special Instructions: If Mango does not eat well at home, continue feeding the

Herbivore Critical Care diet as you hav been doing. He should receive

about 60 ml of diet per feeding, 4-6 times a day.

**EXERCISE:** No restrictions Special Instructions:

MEDICATION	SIZE/QUANTITY	INSTRUCTIONS
Metoclopramide	1 mg/ml solution の手,を時子,生時子	Continue to give 1.7 ml by mouth three times a day for an additional 2 days. This medication is a pro-kinetic which helps the GI tract increase its activity. It also has some anti-nausea properties. Next dose is due at midnight, but you can give the medication at bedtime.
Meloxicam	1.5 mg/ml suspension	Continue to give 0.47 ml by mouth twice a day until gone. This is a non-steroidal anti-inflammatory medication. Possible side effects of this medication include kidney and GI effects, and since he has suspected urinary tract disease but no signs of renal failure on his blood work we have been cautiously continuing to use this medication.
Enrofloxacin	20 mg/ml suspension 용명돌 (AM, PM)	Continue to give 1.6 ml by mouth twice a day for an additional 6 days. This is an antibiotic which we have prescribed since we cannot rule out an underlying infectious cause for the urinary tract signs.
Albendazole	114 mg/ml suspension	Give 0.9 ml by mouth once a day for 5 weeks, then 0.45 ml by mouth once a day for an additional 3 weeks. This medication is being prescribed because of the history of an E. cuniculi positive titer and renal signs now. There is no cure for E. cuniculi (i.e. infection is for life) but we can try to manage signs. The next dose is due at 8 am 9/7/11.
Lactated Ringer's solution		Mango received fluids under the skin while he was in hospital over the weekend, and also received two doses during the day today.

TEST	RESULT	
1591	RESULI	

**DISCHARGE INSTRUCTIONS** 

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Abdominal ultrasound	ABN (Mark with 'X') Norm Not Seen BX FNA Comment
	x Liver Mild diffuse pinpoint hypercehoic foci ("speckled")
	throughout parenchyma. Slightly hypoechoic to kidney.  Gallbladder x
	Intrahepatic Bile Ducts x
	Common Bile Duct x
	Spleen x
	Left Kidney x
	Right Kidney x
	Left Adrenal
	Right Adrenal
	Left MILN x
	Right MILN x
	Urinary Bladder x Normal amount of suspended echogenic debris. Wall normal. (See cineloop)
	Prostate x
	Jejunum x
	lleum x
	Stomach x Ingesta filled.
	Duodenum x
	Colon x
	Pancreas
	x Peritoneum Trace amount of free fluid adjacent to urinary
	bladder.
	Lymph Nodes x Testes/Ovaries
	Uterus
	x Other Moderate amount of fluid in subcutenous tissues
	consistent with recent fluid administration (See cineloop)
	Additional Comments: Patient reportedly received subcutaneous fluid bolus prior to exam.  Ultrasonographic Diagnosis:  1) Normal liver variation vs vaculoar hepatopathy, chronic hepatitis or
	fibrosis. 2) Trace amount of non-specific peritoneal effusion vs potential normal variant following recent fluid administration.
	No abnormal findings were noted in the urinary tract; the changes in the liver may real or may be normal variants
Whole body radiographs	Taken on 9/3/11
	Stomach is ingesta filled. Intestines are gas filled.
	Serosal margin detail is reduced, but likely due to thin body condition. Thorax is within normal limits.
	Radiographic interpretation: Suspect functional ileus
Complete blood count	Performed on 9/2/11
	Packed cell volume 20% (low)
	RBC index low
	Hemoglobin: low Total white cell count: within normal limits
	Total write cell count, within normal lifflies
Biochemistry panel	Performed on 9/2/11
	ALT: increased
D. (1)	Sodium, phosphorus, potassium: low
Reticulocyte count	Performed on 0/2/2011
	Performed on 9/3/2011 % Reticulocyte: 1.0%
	The count is low which is supportive of a non-regenerative anemia.
	and the same same supportant of a non-regenerative anomia.
PCV	Performed on 9/5/11
FGV	22% (very slight increase from previous)

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Analysis 9/4/11 on fluid collected overnight, which was held in the refrigerator*  Color: dark-brown red, clear Urine specific gravity: 1.010  Negative for urobilinogen, ketones and glucose. Trace protein, large positive for blood. pH: 7.5  Cytology: no red or white blood cells noted, no crystals noted.  * Red blood cells may lyse if kept in alkaline medium, which may explain why red cells were not seen in this sample. Alternatively a positive blood test on a urine dipstick can be due to a cross reaction with hemoglobin or myoglobin, so these cannot be ruled out.  Analysis 9/5/11 (following aggressive fluid supplementation)  Color: light brown, turbid  Urine specific gravity: 1.010  Negative for urobilinogen, ketones and glucose. Trace protein, large positive for blood. pH: 8.0  Cytology: few red blood cells noted, rare white blood cells. No crystals noted. Large amount of proteinaceous material, possible hyaline casts.  Small number of transitional epithelial cells (lining of bladder wall), some of which have cellular size variability and multiple nuclei. Moderate amount of stratified epithelial cells.  Performed on 9/4/11
Negative

#### Additional instructions and comments:

Mango is a nearly 5 year old male neutered rabbit who presented to the Special Species department today for abdominal ultrasound. Mango was an inpatient at the VMTH from 9/3-9/5 due to GI stasis, anemia, and hematuria. He was discharged on the morning of 9/5. Once back home Mango was eating a little more food on his own than he had eaten in clinic, so force feeding was discontinued. Urine production was normal, and the color was a more normal turbid brownish color (had been dark brown red on 9/3).

On presentation today Mango was bright and alert. His stomach was palpably softer than it had been when he presented on ER 9/3. Heart rate was 240 beats/minute. The urinary bladder was small on palpation but there continued to be discomfort when this area is touched. The penis was examined and was normal. Repeat oral examination revealed a mild irregularity in crown height of the lower right cheek teeth, but no points, mucosal lesions or halitosis. Remainder of physical examination was within normal limits.

Mango was sedated with midazolam and butorphanol for an abdominal ultrasound. His abdomen was shaved for the procedure. No significant urinary tract abnormalities were noted that could explain the finding of blood in the urine. There were some changes in the liver which may represent a hepatitis, but may also be a normal rabbit variant (we are looking for other examples of rabbit liver ultrasounds but so far have not found any references to use as comparison). We have tried to collect a sample of urine from Mango to submit to the clinical pathology laboratory for follow-up examination (previous analyses were done by Dr. Keller) but have not been successful despite multiple subcutaneous fluid administrations. We are sending Mango home with some No-Sorb plastic litter which might be helpful in collecting a sample. If you are able to get a sample, please keep it in the refrigerator and bring it to the vet school for analysis.

At this moment the presumptive cause of anemia is blood loss through the urinary tract. This may be from the kidneys, ureters or bladder. We did not see signs of any masses or stones in any of these structures, but it is possible that the changes are at the microscopic and not macroscopic level. E. cuniculi can certainly cause inflammation in the kidneys and liver and could account for most of the signs and changes noted on diagnostic tests but we cannot rule this in as the ultimate cause without a biopsy of the kidney or liver. We will continue treatment for bacterial disease (enrofloxacin) and palliative medication for E. cuniculi (albendazole). The antibiotic and pain medication (meloxicam) will also be helpful if there is a bacterial cystitis (bladder inflammation or infection) and may be useful if there is a hepatitis.

We would like to recheck his red cell count in one week to monitor his anemia. In the meantime please monitor food intake, fecal output and character as well as urine production and urine color. If you notice that appetite and fecal output are decreasing again, or that urine color is darker, that he is straining to urinate or seems painful on urination, please call us right away.

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<ul><li>☐ Not required</li><li>☑ Please set up appointm</li></ul>	ent for: reched	ck PCV on the following date: one week		
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	THE RESERVE	DISCHARGE INSTRUCTIONS		
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Follow-up examination/communication with the Veterinary Medical Teaching Hospital:

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☐ Please provide us with a progress report by telephone, fa☐ We will call you with the following information:	x, or letter on or about this date:
Follow-up examination/communication with your r	egular veterinarian:
☐ Not required ☐ Please set up appointment for: on the following da (If you have a local veterinarian who referred you to the V	
Lotan Hoshin	D.Keller
Signature of Owner/Agent	Signature of VMTH Clinician(s)

Referring Veterinarian Report:

## --CLIENT INVOICE--

# University of Wisconsin - Madison UW Veterinary Care 2015 Linden Drive

Madison, WI 53706 608-263-7600 or 1-800-DVM-VMTH http://uwveterinarycare.wisc.edu

KOTOYO HOSHINA 5002 SHEBOYGAN AVE APT 120 MADISON, WI 53705

Date: 09/06/11

Account: 137820

Patient				Amount
			Previous Balance Due	
			OR Deposit Credit (-)	0.00
Mango				
		Charges:	RADIOLOGY	56.50
			RADIOLOGY-ULTRASOUND	181.00
			CRITICAL CARE UNIT	29.00
			SA-SPECIAL SPECIES	10.60
			Total Due	277.10
	09/06/11	VMTH	ADJUSTMENT	53.70-
		Reason: taken	out per CCU tech. CCU did not handle	: Keller treated
	09/06/11	PAYN	MENT BY CREDIT CARD	223.40-
			Payment Due	0.00
Clinician:				

This invoice reflects currently processed charges. Additional charges may be forwarded to the cashier and will be billed separately.

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