



Clinical Nephrolithiasis in a Male Spotted Seal (*Phoca largha*)



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The Past: Clinical Course

- Spring 2020: Started UAs, abundant RBCs noted
- Summer 2020: ↑ WBCs, cocci, crystals, and frequency of urination, max weight ~7 kg higher
- Aug 2020: Treated for UTI Clavamox (25 mg/kg BID), probiotic
- Sep 2020: ↓ food intake, ↑ pain, added Meloxicam (0.1-0.2 mg/kg SID PO or SQ); Convenia (8mg/kg SQ), Maropitant (1-2 mg/kg SID PO or SQ), LRS w/Vit B SQ
- Oct 2020: Ongoing inappetence, painful behaviors, CT scan confirms multiple kidney stones, continued supportive care, increased hydration
- Nov 2020: Started Allopurinol
- Dec 2020: Painful episode, supportive care, resolved
- Spring 2021: Seeing decrease in amount of RBCs

The Present: Ongoing Treatment

- Allopurinol (4-11 mg/kg total per day) PO
- Increased hydration, increasing water intake
- Weight management

The Future: Monitoring and Investigative Plans

- Periodic UAs, US, & CT scans
- Investigating diet modification
- Figuring out stone type
- Not attempting to modify urinary pH, stone type unconfirmed, cannot easily tract precise pH, could cause different stones if go too far
- Any suggestions?



Figure 1: Ultrasound of Left Kidney

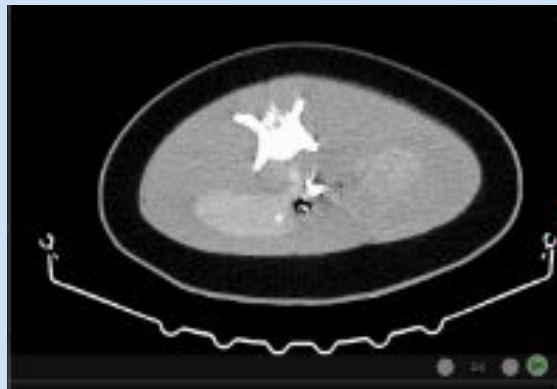


Figure 2: CT Scan at the level of the kidneys

	AVG	SD	MIN	MAX
UROBILI	0.29	0.7	0	2
BILI	0.05	0.2	0	0.5
PROTEIN	42.00	42.1	0	100
pH	5.84	0.6	5	7
SP GRAVITY	1.03	0.01	1.017	1.043
RBC / hpf			0	TNTC
WBC / hpf			0	1
BACTERIA/hpf	1.04	1.5	0	4+
CRYSTALS/lpf	1.04	1.6	0	4+

Table 1: UA Results from samples largely take off the deck, consistently negative for nitrites, ketones, glucose, casts. Bacteria were always cocci and the numbers were qualitatively assessed on a scale of 1-4. Crystals typically struvite and the numbers were qualitatively assessed on a scale of 1-4



Figure 3: Range of color of urine

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