



APSC 4954

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Clinic Work Experience

Starting April 2021, I began working at Crossroads Veterinary Hospital located in Woodstock Georgia. I worked as a Veterinary Technician Assistant under three doctors, Dr. Clark, Dr. Evans, and Dr. White. My day-to-day tasks were nursing the hospitalized patients, blood drawing, placing IV catheters, checking patients in for appointments, holding the animals during appointments, running in-house IDEXX bloodwork, administering SQ fluids, collecting urine via cystocentesis, capturing X-ray images, assisting with ultrasound, assisting doctors in surgery when needed, drawing up medications, and assisting kennel technicians when needed.

Throughout my time at the clinic, I have learned many valuable skills in the veterinary field and have deepened my love for the profession. These skills and knowledge have prepared me for Veterinary school, and for a long-term career in the Vet Med field.

One unique case that most of the technicians and doctors were a part of became the focus of my case study.

Addison's Disease

- Addison's disease, formally known as hypoadrenocorticism, is the underproduction of glucocorticoids (cortisol) and mineralocorticoids (aldosterone) caused by the failure of the adrenal glands, which untimely plays a role in regulating the dog's internal organs and body systems.
- True cause for Addison's is unknown, but some common causes include auto-immune conditions or by other conditions such as cancer. This disease is not curable and will require lifelong treatment and has a high mortality rate is inappropriately treated.
- Predisposed breeds include Standard Poodles, West Highland White Terriers, Great Danes, Bearded Collies, Portuguese Water Dogs, Nova Scotia Suck Tolling Retrievers, Soft Coated Wheaten Terriers, and Rottweilers
- Affects females more often than males, and usually it is diagnosed between 4-7 years old
- Common symptoms: weakness, anorexia, vomiting, diarrhea, polydipsia, polyuria, depressed, lethargic, trembling, shaking, low temperature, weight loss, painful abdomen, weak pulse, hyperpigmentation of the skin.

Background information

Patient X Information

- Spayed Female
- Age: 8 months
- Wight: 35.1lbs
- Breed: Pitbull-Shar Pei Mix
- Color: Black/white

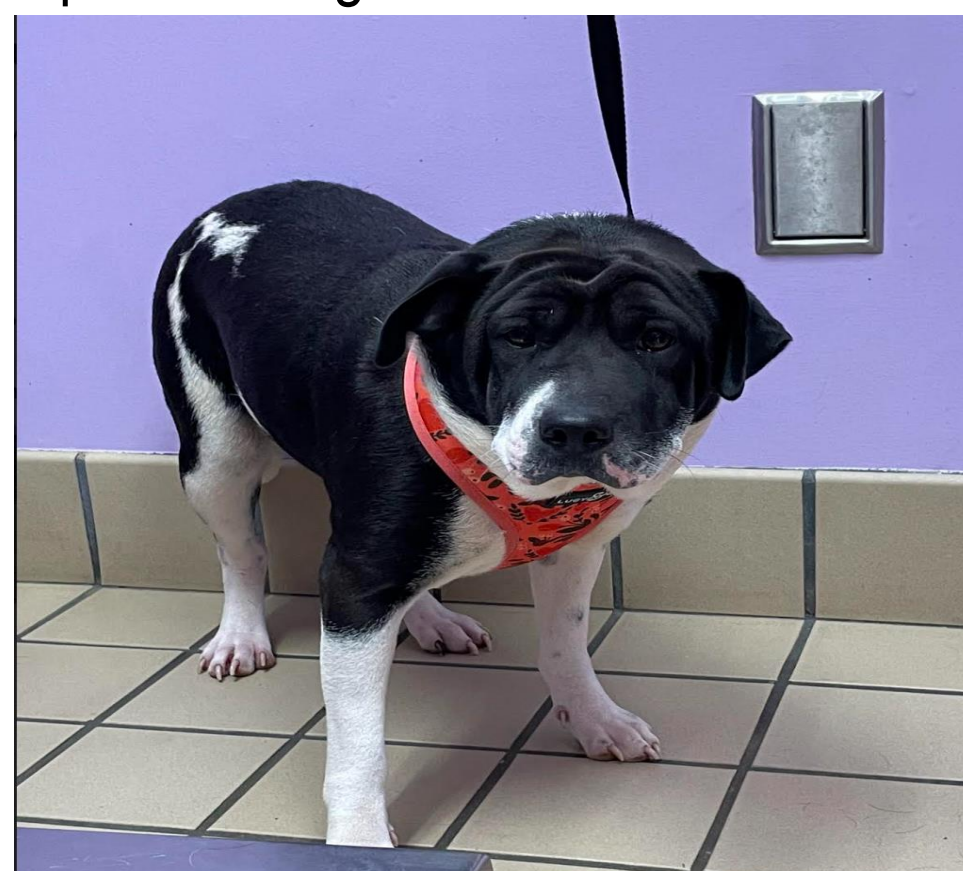
Reason for Initial Visit and Medical Plan on 3/16/22

Symptoms

- Lack of appetite
- Green goop present in both eyes
- Owner noticed very red gums the previous night
- Vomiting
- Lethargic

Medical Plan

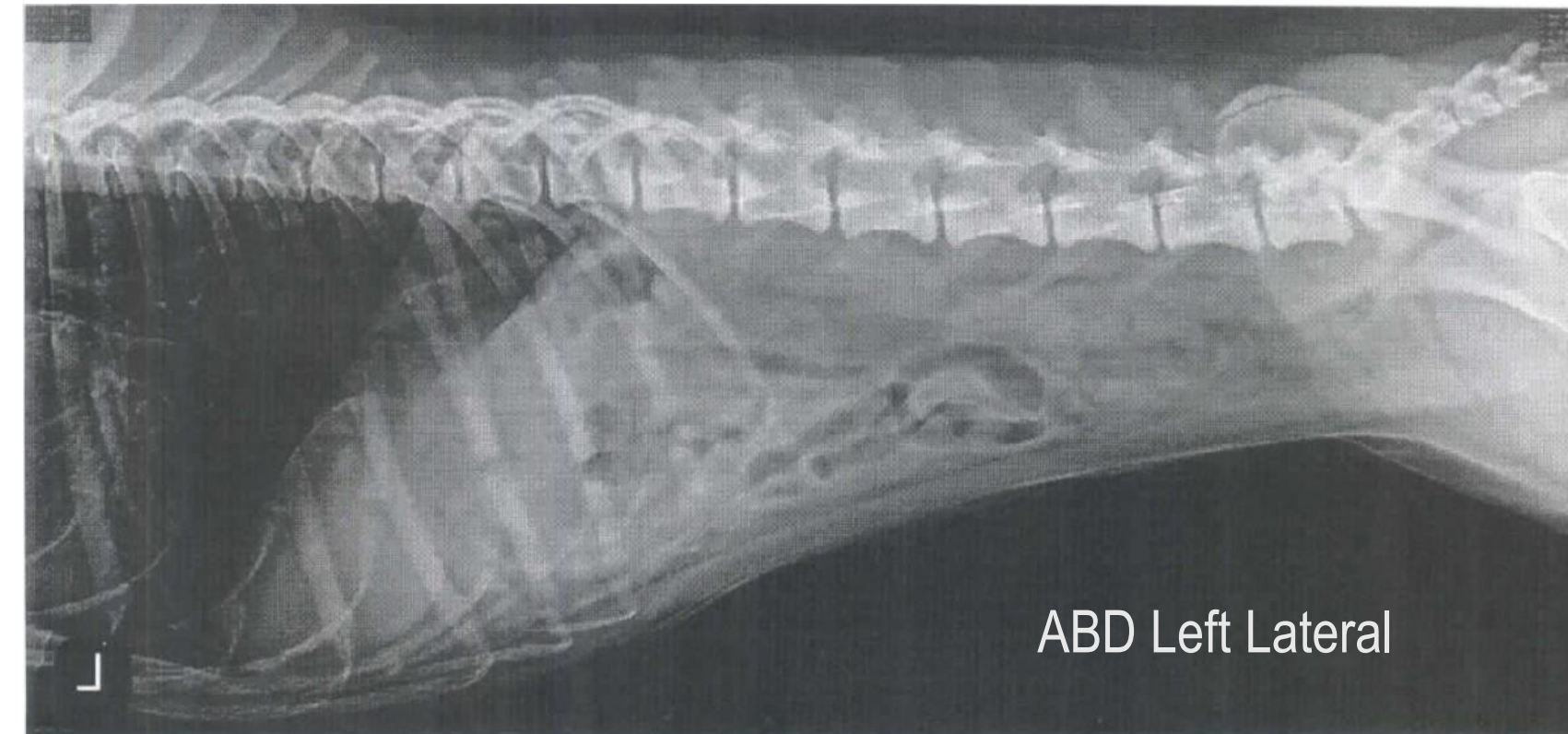
- Physical exam – WNL
- Heart/ lungs – WNL
- Temp – 100.2
- Treat Symptomatically
 - Cerenia
 - LRS SQ
 - 2 cans I/D sent home



~Recent Picture of Patient X

Recheck Exam and Medical Plan 3/17/22

- Owner stated No improvement
- Physical exam – depressed and bad mouth odor
- Temp – 99.3
- Dr requested X-Rays
- Sent young adult blood panel to IDEXX Lab
- LRS 600mL



This X-ray shows the abdomen of Patient X, and this shows that there is no foreign body and/or abnormal gas patterns to enforce that there is anything stuck in the intestines or stomach. Patient X is young, therefore, there is not a lot of fat shown. According to our doctors, this is a normal X-ray for patient X.

Initial Lab-work Results (3/18/22)

Hematology		Chemistry	
3/18/22 (Order Received)	3/18/22 11:47 AM (Last Updated)	3/18/22 (Order Received)	3/18/22 11:47 AM (Last Updated)
WBC	13.6	Glucose	87
RBC	9.09	IDEXX SDMA	21
Hematocrit	64.0	Creatinine	4.3
Hemoglobin	23.1	BUN	140
MCV	70	BUN:Creatinine Ratio	32.8
MCH	25.4	Sodium	128
MCHC	36.1	Na:K Ratio	7.0
% Reticulocyte	0.4	Chloride	99
Reticulocyte	36	Total Protein	5.6
Hemoglobin	28.6	Albumin	3.8
WBC	13.6	Albumin:Globulin Ratio	0.7
% Neutrophils	51.4	ALT	34
% Lymphocytes	30.5	ALP	38
% Monocytes	10.2	Hemolysis Index	
% Eosinophils	7.8	Lipemia Index	
% Basophils	0.1		
Neutrophils	6.99		
Lymphocytes	4.148		
Monocytes	1.387		
Eosinophils	1.061		
Basophils	0.014		
Platelets	311		

- Elevated HCT – 64%
- Elevated RBC – high
- Elevated Mono – 1387
- Elevated SDMA – 21
- Elevated BUN – 140
- Elevated Creatinine – 4.3
- Elevated K – 7.0**
- Decreased Na – 128**
- Decreased Cl - 99**

After receiving the lab results back from IDEXX, Dr. Clark immediately hospitalized Patient X because this can indicate kidney disease, liver disease, autoimmune disease, or polycythemia. The electrolyte levels (K, Na, Cl) was consistent with Addison's Disease, and Dr. Clark decided to run the ACTH while Patient X was in the hospital.

- 20g IV Cath placed with NaCl @ 100ml/hour
- Run ACTH to R/O Addison's
 - Injection Cortrosyn 0.3mL IV
 - Dexamethasone 2mL IV

TEST	RESULT	REFERENCE VALUE
Cortisol - Pre ACTH	<0.2	µg/dL
Cortisol - Post ACTH	<0.2	µg/dL

~Patient X ACTH results on 3/18/22. These results confirmed Dr. Clark's suspicion of Addison's Disease from the symptomology and electrolyte results.

ACTH Reference Range

Canine Range

Canine Range	ACTH Reference Range
2-6	Pre-ACTH (resting) cortisol
6-18	Post-ACTH cortisol
>22	Hyperadrenocorticism
<2	Hypoadrenocorticism

Patient X Hospital Day 2 (3/19/22)

- Patient X had 668mls of NaCl fluid infused overnight
 - Presented lethargy and refusing food
 - Dr. Clark wanted an in-house bloodwork panel to be able to compare to the previous days results.
- Repeat Bloodwork (In-house)**
 Increased HCT – 68.8%
 Increased WBC – 22,870
 Increased Mono - 1650
 Increased BUN – 57 (was 140)
 Increased Creatinine – 2.1 (was 4.3)
Potassium – 5 (was 7)
Sodium – 145 (was 128)
Chlorine – 112 (was 99)

Doctor Notes from Bloodwork Recheck Results

- Electrolytes slightly improved
- Continue fluids on patient
- Give DOCP Injection and start oral medication
 - Injection DOCP (Zycortal) 1mL IM
 - Rx: Prednisolone 5mg
 - Cephalexin 250mg

Medical Plan

- Recheck Bloodwork 2 days, recheck electrolytes in 14 days
- Continue oral medication

Final Medical Plan

- Patient X was discharged on 3/21/22 with kidney values within normal limits and WBC starting to decrease back into normal range.
- Patient X was to return in 2, 3, and 4 weeks to recheck electrolyte levels
- Continue cephalexin and prednisolone
- Patient X will need a biyearly bloodwork panel to continue to monitor kidney function
- Patient X will need to return for monthly DOCP injections for the remainder of her life

Electrolytes Recheck

	4/2/22	4/8/22	4/15/22
Sodium (Na)	151 Normal	155	151
Potassium (K)	3.6 Normal	4.1	4.1
Chlorine (Cl)	N/A	108 Slightly Low (109-122) - Normal	112

The electrolyte recheck indicated that Patient X was returning to normal after DOCP injection, oral medication, and two days of NaCl fluids. During the recheck, patient activity level was noted as normal, appetite reported as normal as well.

Works Cited:

- Mooney, Carmel. (PDF) Addison's Disease (Hypoadrenocorticism) in Dogs - Researchgate. www.researchgate.net/publication/242726151_Addison's_disease_Hypoadrenocorticism_in_dogs.
- Understanding hypoadrenocorticism in dogs (Addison's disease). Understanding Addison's Disease in Dogs | Morris Animal Foundation. (n.d.). Retrieved September 30, 2022, from <https://www.morrisanimalfoundation.org/article/addisons-disease-in-dogs>