



Endocrinology

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Chief Complaint

“Phoebe” is a 10year old neutered male poodle with a history of polyuria, polydipsea, polyphagia, bilateral abdominal alopecia for the past several months.

Phoebe



History

- Polyuria/Polydipsia past 3 months
- Polyphagia – last 2 months
- Increased lethargy
- Increased panting

Physical Examination

- Dull and lethargic
- Temperature 38.8 degrees C
- Heart Rate 110 bpm
- Respiratory Rate – 40 per minute
- Pendulous abdomen
- Bilateral abdominal alopecia
- Hyperpigmentation of skin

Problem List

- Dull and lethargic
- Polyuria/Polydipsia
- Bilateral abdominal alopecia
- Hyperpigmentation of skin – abdomen and flank
- Panting
- Pendulous Abdomen

Rule Outs

- List all the Possible Diagnoses
- *This list is your Rule Out list*

Rule Outs

- Hypothyroidism
- Sex hormone dermatoses
- Diabetes mellitus
- Renal Disease
- Hyperadrenocorticism
- Hypercalcemia

The Plan

- What is your PLAN ?

Plan

- CBC
- Blood Serum Chemistry
- Urinalysis

CBC/Chemistry/Urinalysis

- CBC- Lymphopenia, Leukocytosis
- ALT - 200 u/L (10-100)
- SAP – 850 u/L (23-212)
- U/A: 1.020 (1.035-1.040)

Rule Out Elimination

- From the clinical signs and lab results:
- What rule outs from your previous list are now likely or unlikely?

Rule Outs

- Hypothyroidism - unlikely – T4 Normal
- Sex hormone dermatoses - Likely
- Diabetes mellitus – unlikely - normal Blood Glucose
- Hyperadrenocorticism – likely – high SAP
- Renal Disease – unlikely - normal BUN, SCr,
- Hypercalcemia – unlikely - normal serum Calcium

Most Likely Diagnosis?

- What is the most likely diagnosis?

Most Likely Diagnosis

- Hyperadrenocorticism (Cushing's Disease)

What is Your Next Plan ?

- Any further laboratory tests to help you confirm the Diagnosis?

Further Diagnostic Tests

- ACTH Stimulation Test
- Low Dose Dexamethasone Suppression Test

Results of Additional Tests

- ACTH Stimulation Test

- Pre Cortisol Level – 200 nmol/L (20-30)
- Post Cortisol Level – 900 nmol/L (200-400)

Low Dose Dexamethasone Test

- All cortisol values remain above 1 ug/dL(30 nmol/L)

Interpretation of Tests

- ACTH – for a positive test the post cortisol level should be 4 times higher than the pre cortisol level
- Low Dose Dexamethasone Test – for a positive test the post cortisol level should be above 1 ug/dL(30 nmol/L)

What is your Diagnosis?

What is your final diagnosis ?

What is the etiology?

Final Diagnosis

- Hyperadrenocorticism
- Which type of Hyperadrenocorticism ?
 - Pituitary –dependent Cushing's Disease
 - Adrenal tumor Cushing's Disease

Further Tests

- Tests used to differentiate
 - Pituitary-dependent Cushing's from
 - Adrenal Tumor.

Further Tests

- Tests used to differentiate Pituitary-dependent Cushing's from Adrenal Tumor.
 - High Dose Dexamthasone Test – see 5 Minute Veterinary Consult
 - Ultrasound adrenal gland – if adrenal dependent Cushings the adrenal gland is in enlarged.

Treatment Plan

- Mitotane (o,p-DDD, Lysodren)
- Trilostane



The End





























































