**April Endocrine Month 2022**

**April 5, 2022**

9:30-10:15 Thyrotoxicosis----Dr.Mahmoud Alsayed

10:15-11:00 Thyroid nodule----Dr. Alex Nelson

Break

11:30-12:15 Osteoporosis---Dr. Gauri Behari

**Objectives:**

**Thyrotoxicosis:**

1. Describe the normal physiology of the hypothalamus-pituitary-thyroid-target tissue axis. (It may help to draw a diagram and label it with feedback loops.)

2. Describe the signs and symptoms that should make a clinician suspect

 thyrotoxicosis. What lab values should be ordered when suspecting

 thyrotoxicosis?

3. Describe the differential diagnosis for thyrotoxicosis. (There are 11 at least!)

4. After the laboratory confirmation of thyrotoxicosis, what are the next steps in the

 algorithm to determine its cause? (Describe the following labs/tests and what

 they find: (Include TSI antibodies, radioactive iodine uptake (RAIU) and scan,

 thyroid scintigraphy, and thyroid ultrasound)

 5. What test distinguishes between exogenous thyroid hormone ingestion and

 thyroiditis?

 **Thyroid Nodules:**

1. Know the rate of malignancy in thyroid nodules that are incidentally discovered (aka detected on imaging performed for a non-thyroid related reason).
2. List and describe several risk factors for thyroid cancer.
3. Know the ultrasound features of thyroid nodules that make them worrisome for malignancy.
4. Draw the algorithm for initial workup of a thyroid nodule. Know the indications to proceed with FNA.
5. Radiology RADS criteria for thyroid nodules.

**Osteoporosis:**

1. Know the definition of osteoporosis clinically and by the DEXA score.
2. Describe the patients that should be screened for osteoporosis based on the USPSTF guidelines and the National Osteoporosis Foundation (NOF) Guidelines (including men).
3. Describe the indications for treatment of osteoporosis according to the NOF.
4. Make a table and and describe the pharmacologic therapies for osteoporosis, (including bisphosphonates, selective estrogen receptor modulators (SERMS), calcitonin, teraperatide, and denosumab), their mechanism of action, contraindications, and side effects.
5. Know the recommended doses of calcium and vitamin D and the goal 25-OH vitamin D value.