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Case Study, Chapter 52, Assessment and Management of Patients With Endocrine Disorders

1. Don Smart, 55 years of age presents to the family physician to follow up on some symptoms he recently developed. The patient states that he is extremely tired and is having trouble concentrating. He states that his skin is dry and flaky. His nails are brittle and his hair is dry, dull, and falls out as he showers. He is 8 weeks postop after a modified radical neck procedure for laryngeal cancer and has completed the external radiation therapy. He is using a Blom--Singer prosthesis for speech. He states that his appetite is poor, yet he is gaining weight. The patient's current medications include metformin (Glucophage) for a history of type 2 diabetes, digoxin 0.25 mg every day for a history of atrial fibrillation, and warfarin therapy being managed by the family physician for thromboembolism prophylaxis related to atrial fibrillation. The physician orders the following lab work: CBC with differential, serum albumin, TSH, FT4, PT, and INR. (Learning Objective 3)

- a. What is the rationale for the labs ordered, based on the symptoms that the patient is exhibiting?
 - a. The patient is receiving the CBC due to possible infection since he just had a surgery done recently
 - b. The patient is getting his TSH and FT4 drawn up due to the fact that he is showing a lot of symptoms of hypothyroidism. Some of those symptoms being losing hair, fatigue, and unexpected weight gain.
 - c. The patient is receiving a PT and INR because he is currently taking warfarin.
 - d. The patient is also getting his albumin levels drawn because albumin is known to bind and transport T3 and T4.
- b. The physician follows up with the patient with the diagnosis of hypothyroidism. What are reasons why the patient developed hypothyroidism?
 - a. The patient could have developed hypothyroidism due to his laryngeal cancer and surgery. Also being an older adult is another risk factor for hypothyroidism.
- c. Based on the results of the TSH and FT4, the physician starts the patient on levothyroxine (Synthroid) 0.025 mg/day and to have follow-up TSH and FT4 labs and visit to the oncologist in 4 weeks. The physician informs the patient that he will continue to have lab tests and monthly follow-up until the TSH and FT4 are stable. What is the rationale for this treatment plan?

- a. The rationale for the treatment plan is to make sure the 0.025 dosage is working therapeutically. If it is not changing the levels of the TSH and FT4 it needs to be increased.
- d. What nursing interventions should the nurse provide the patient?
 - a. Encourage increased fluid intake
 - b. Explain the rationale for thyroid hormone replacement
 - c. Explain the desired effects of medication to the patient
 - d. Encourage a diet high in fiber
 - e. Monitor vitals
 - f. Provide extra layer of clothing or blanket
 - g. Promote rest and exercise as tolerated
 - h. Assist the patient when he is fatigued

2. Mrs. Ramirez was admitted to the hospital for wrist surgery secondary to rheumatoid arthritis. Postoperatively, she is stabilized and transferred to the general surgery unit. Mrs. Ramirez's medications include digoxin, Lasix, captopril, Synthroid, aspirin, Protonix, and prednisone. When administering morning medications, Mrs. Ramirez refuses her aspirin and prednisone, and the nurse holds the medications. Over the next 3 days, Mrs. Ramirez continues to refuse the prednisone, and the medication is not administered. On the third postoperative day, Mrs. Ramirez becomes hypotensive, tachycardic, and has a decrease in level of consciousness. STAT labs are sent for a complete blood cell count and chemistry panel, and the physician is notified of the change in patient status. On review of the patient's record, the physician notes that Mrs. Ramirez has not received her prednisone for 4 days. Mrs. Ramirez has been on Prednisone for the past 5 years for her rheumatoid arthritis, and the physician begins to treat the patient for acute adrenal insufficiency. (Learning Objectives 7 and 9)

- a. What other clinical manifestations should the nurse monitor for with suspected adrenal insufficiency?
 - a. Muscle weakness
 - b. Anorexia
 - c. GI symptoms
 - d. Fatigue
 - e. Dark pigmentation of the mucous membranes and skin
 - f. Hypotension
 - g. Low blood glucose
 - h. Low serum sodium and high serum potassium
 - i. Depression
 - j. Apathy
 - k. Confusion
- b. The physician prescribes a STAT dose of IV hydrocortisone. What is the rationale for this medication in this situation?
 - a. The hydrocortisone being administered it is an immediate situation. It help restore the adrenal gland function.

Administering the hydrocortisone IV will help it stimulate the adrenal glands faster.

Hinkle, J. L., Cheever, K. H., & Brunner, L. S. (2018). *Brunner & Suddarths textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.