

## 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?

The PT and INR are coagulation labs that are necessary to check to see if the levels are appropriate since the patient is on warfarin. The labs for TSH and FT4 are necessary to determine the level of functioning of the thyroid. The patient having a radical neck procedure could have effected his thyroid gland. Serum albumin is ordered because the thyroid hormones are bound to protein in the body. The CBC is ordered to check blood cell levels as well as identify whether there is infection or inflammation indicated.

- b. The physician follows up with the patient with the diagnosis of hypothyroidism. What are reasons why the patient developed hypothyroidism?

The patient developed hypothyroidism in relation to the radical neck procedure he had done. There is a direct correlation between radiation therapy for the neck and 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?

The patient needs to be retested to verify whether the thyroid medication is working. This is a new diagnosis and the dosage may

need to be reevaluated depending on what his labs show during his follow up appointments.

- d. What nursing interventions should the nurse provide the patient?

The nursing interventions for this patient are to monitor patient's body temperature because they will have an intolerance to cold, provide information about the lifelong thyroid replacement therapy the patient will have to undergo, and continue to monitor patient for signs and symptoms of myxedema.

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?

Other clinical manifestations of adrenal insufficiency are muscle weakness, anorexia, fatigue, emaciation, dark pigmentation of the mucous membranes and skin, low blood glucose, low sodium, and elevated potassium levels.

- b. The physician prescribes a STAT dose of IV hydrocortisone. What is the rationale for this medication in this situation?

The patient stopped taking prednisone abruptly instead of being tapered. Hydrocortisone will act as a replacement for the function of the steroid.

#### References

Hinkle, J.L., & Cheever, K.H. (2018). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing*. Wolters-Kluwer.