An 82-year-old woman is brought to the emergency department by her son because of a 1-week history of nausea. She has had a decreased appetite resulting in a 4.5-kg (10-lb) weight loss over the past month. She has atrial fibrillation, congestive heart failure, and well-controlled type 2 diabetes mellitus. Medications include lisinopril, digoxin, furosemide, and glipizide. Her pulse is 60/min and regular, and blood pressure is 130/70 mm Hg. Visual acuity is 20/20. Deep tendon reflexes are absent at the knees and ankles bilaterally. Her serum glucose concentration is 120 mg/dL. Arterial blood gas analysis shows no abnormalities. Which of the following is the most likely cause of this patient's symptoms?

(A) Digoxin toxicity  
(B) Hyperthyroidism  
(C) Inadequate control of blood glucose concentration  
(D) Lacunar cerebral infarction  
(E) Subacute meningitis

Learning Objectives

The listener should be able to:

- Recognize the classic presentation and symptoms of Digoxin toxicity
- Know the most common cause of digitalis intoxication
- Recognize the presentation of Hyperthyroidism in the geriatric population
- Know the method for determining the presence of hyperglycemia
- Recognize the most common causes of Lacunar cerebral infarction
- Know the typical presentation of Subacute meningitis

### Key Teaching Points

1. Classically digitalis toxicity results in fatigue, nausea/vomiting, changes in heart rate and rhythm, loss of appetite, diarrhea, visual disturbances such as yellow or green halows around objects, confusion, dizziness, nightmares, agitation, and/or depression, as well as a higher acute sense of sensual activities. Specific cardiac symptoms include palpitations, shortness of breath, syncope, swelling of lower extremities, bradycardia, and hypotension.

2. In the question above, it is important to note that because of her age, Nauseated Nanna is already at risk for Digoxin toxicity. In addition, she is taking a diuretic which also increases her risk. Her symptoms of nausea, decreased appetite, bradycardia, and absent knee and ankle DTRs are consistent with Digoxin Toxicity. Although she does not have the classic visual symptoms of yellow or green halos, this symptom is not definitive of digoxin toxicity.

### Comments

### References


Cooper, David S. Disturbances of Thyroid Function In *Geriatric Medicine: An Evidence-Based Approach*; 2003.


Davis PJ, Davis FB, Leinung MC. Endocrine Disorders In *Duthie: Practice of Geriatrics*, 4th Ed. 2007.

