

Pharmacology Anemia Case Study Assignment

Client Profile

Mr. L is a 64-year old client who had a total gastrectomy of the small and large bowel resection including the ileum two years ago. Mr. L. is referred to the hospital inpatient clinic by his primary health care provider for further evaluation after a routine annual examination.

Case Study

During the initial interview, Mr. L complains of having had anorexia, nausea, vomiting, and abdominal pain for the past two days. Physical assessment findings include paresthesia of the hands and feet, reduced vibratory and position senses, ataxia, and muscle weakness. Assessment data on his daily nutritional intake includes frank furters, brewer's yeast, clams, dried beans, and carrots.

Vital signs taken by the nursing assistant are:

Blood pressure: 120/78

Pulse: 78

Respirations: 18

Temperature: 98.4° F

Tentative diagnosis of **pernicious anemia** is made and the health care provider prescribes serum laboratory data: hematocrit, hemoglobin, methylmalonic acid and homocysteine level, platelet count, red blood cell count, folic acid level, and peripheral blood smear. Mr. L is to return to the clinic in two days for a follow-up on the results of the laboratory data, confirmation of the diagnosis, and prescription as required. Mr. L returns to the clinic as scheduled.

His laboratory results are:

Hematocrit (Hct): 38%

Hemoglobin (Hgb): 16 g/dL.

Methylmalonic acid and homocysteine levels: elevated

Platelet count: 200,000/mm³

Red blood cell (RBC) count: 2,500,000/mm³

Folic acid: 3 ng/mL

Also, the peripheral blood smear shows oval, macrocytic, and hypochromic RBCs .

The healthcare provider reviews the data, and a diagnosis of **Pernicious Anemia** is confirmed.

Questions

1. Explain the pathophysiology of vitamin B₁₂ deficiency and its relationship to pernicious anemia.
2. Why is vitamin B₁₂ anemia called megaloblastic anemia?
3. Discuss classic manifestations of vitamin B₁₂ deficiency a nurse should expect to observe during assessment of this client.
4. Discuss the specific relationship of thrombocytes (platelets) and vitamin B₁₂ deficiency and nursing management.
5. Discuss common nursing diagnoses for vitamin B₁₂ deficiency anemia.
6. What are the purposes for the prescribed medications?
7. What are the most common adverse reactions, drug-to-drug, drug-to-food/herbal interactions of cyanocobalamin (vitamin B₁₂)?
8. Discuss factors that may inhibit folic acid absorption.
9. Discuss client education for vitamin B₁₂ deficiency anemia.
10. Discuss nursing implications for clients with vitamin B₁₂ deficiency.

Submit the case study and answers to your instructor for grading?