tional issues such as possible driving restrictions and change in occupation. The grief response varies among patients and families. The nurse should be attuned to the specific needs of the patient and the family and teach them accordingly while providing appropriate emotional support.

CRITICAL THINKING EXERCISE

CASE STUDY

Myocardial Infarction

Patient Profile. Mr. D., a 51-year-old, white, successful businessman, was rushed to the hospital by ambulance after experiencing crushing substernal chest pain that radiated down his left arm. He also complained of dizziness and nausea.

Subjective Data

- Has a history of chronic stable angina and hypertension
- States he is “borderline diabetic”
- Overweight but recently lost 10 pounds
- Rarely exercises
- Has three teenage children who are causing “problems”
- Recently experienced loss of best friend and business partner, who died from cancer

Objective Data

Physical Examination
- Diaphoretic, short of breath, nauseous
- BP 165/100, pulse rate 120, respiratory rate 26/min

Diagnostic Studies
- ECG shows occasional premature ventricular contractions and ST elevation in leads II, III, aVF, V5, V6
- Cardiac-specific troponin I level elevated
- Cholesterol 350 mg/dl (9.1 mmol/L)
- Hb A1C 9.0
- Inferolateral wall MI

Collaborative Care

Emergency Department
- Oxygen 2 L/min via nasal cannula
- aspirin 325 mg (chewable)
- reteplase IV
- nitroglycerin IV, titrate to relieve chest pain; hold for systolic BP <100
- morphine 2 to 4 mg IV q5min prn for chest pain unrelieved by nitroglycerin
- Weight-based heparin IV
- metoprolol (Lopressor) 5 mg IV q5min × .3 doses
- Vital signs, pulse oximetry every 10 minutes during infusion of reteplase

Critical Thinking Questions

1. Which coronary artery(ies) is/are most likely occluded in Mr. D.’s coronary circulation?
2. Explain the pathogenesis of CAD. What risk factors may contribute to its development? What risk factors were present in Mr. D.’s life?
3. What is angina? How does chronic stable angina differ from angina associated with myocardial infarction?
4. Explain the pathophysiologic basis for the clinical manifestations that Mr. D. exhibited.
5. Explain the significance of the results of the laboratory tests and ECG findings.
6. Provide a rationale for each treatment measure ordered for Mr. D.
7. Based on the assessment data presented, write one or more priority nursing diagnoses.

NURSING CARE PLAN

Mr. D.

Myocardial Infarction

1. In teaching a patient about coronary artery disease, the nurse explains that the changes that occur in this disorder involve
   a. formation of fibrous tissue around coronary arteries.
   b. diffuse involvement of plaque formation in coronary veins.
   c. accumulation of lipid and fibrous tissue within the coronary arteries.
   d. chronic vasoconstriction of coronary arteries leading to permanent vasospasm.

2. After teaching about ways to decrease risk factors for CAD, the nurse recognizes that additional instruction is needed when the patient says,
   a. “I would like to add weight lifting to my exercise program.”
   b. “I can’t keep my blood pressure normal without medication.”
   c. “I can change my diet to decrease my intake of saturated fats.”
   d. “I will change my lifestyle to reduce activities that increase my stress.”

3. A hospitalized patient with angina tells the nurse that she is having chest pain. The nurse bases her actions on the knowledge that ischemia
   a. will always progress to myocardial infarction.
   b. will be relieved by rest, nitroglycerin, or both.
   c. indicates that irreversible myocardial damage is occurring.
   d. is frequently associated with vomiting and extreme fatigue.

4. The clinical spectrum of acute coronary syndrome includes
   a. unstable angina and STEMI.
   b. unstable angina and NSTEMI.
   c. stable angina and sudden cardiac death.
   d. unstable angina, STEMI, and NSTEMI.

5. In planning activity for the patient recovering from an MI, the nurse recognizes that the healing heart wall is most vulnerable to stress
   a. 3 weeks after the infarction.
   b. 4 to 6 days after the infarction.
   c. 10 to 14 days after the infarction.
   d. when healing is complete at 6 to 8 weeks.

6. A patient is admitted to the CCU with chest pain of 24 hours duration, ECG findings consistent with an acute MI, and rare ventricular dysrhythmias. The nurse plans care for the patient based on the expectation that the patient will be managed with
   a. fibrinolytic therapy.
   b. endotracheal intubation.
   c. intravenous nitroglycerin.
   d. intraaortic balloon pump therapy.

7. Three days after MI, a patient states that he does not understand what the alarm is about because his problem was just a case of “bad indigestion.” His reaction is an example of
   a. anger.
   b. denial.
   c. projection.
   d. depression.