

STUDENT NAME _____

DISORDER/DISEASE PROCESS Myocardial Infarction (MI)

REVIEW MODULE CHAPTER _____

Alterations in Health (Diagnosis)**Heart Attack****Pathophysiology Related to Client Problem**

Irreversible death (necrosis) of cardiac tissue due to prolonged reduced or lack of oxygen supply (ischemia).

Health Promotion and Disease Prevention

Modification of diet to reduce on ingestion of fats and refined carbohydrates to avoid the development of Coronary Artery Disease.

ASSESSMENT**Risk Factors**

Modifiable factors:
Smoking, hypercholesterolemia and hypertriglyceridemia, dyslipidemia, diabetes mellitus, hypertension, obesity, psychosocial stress, sedentary lifestyle, reduced consumption of fruits and vegetables, poor oral hygiene, Type A personality, elevated homocysteine levels, and presence of peripheral vascular disease.
Non-modifiable factors:
Age, sex, family history of premature coronary heart disease, male-pattern baldness,

Expected Findings

Shortness of breath, Fatigue, Chest discomfort, Malaise, and Chest pain (intense and unremitting for 30-60 minutes, substernal, and often radiates up to the neck, shoulder, and jaw, and down the left arm, described as a substernal pressure sensation).
Tachycardia, irregular pulse, initially elevated BP or hypotension and cardiogenic shock with right ventricular MI or severe left ventricular dysfunction, increased respiratory rate, coughing, wheezing, and the production of frothy sputum.

Laboratory Tests

Cardiac biomarkers/ enzymes (CK, CK-MB, Myoglobin, and cardiac troponin (the best))
Complete blood count
Lipid profile
Comprehensive metabolic panel

Diagnostic Procedures

Clinical evaluation and history
Electrocardiography (ECG)
Cardiac catheterization
Cardiac imaging - coronary angiography
Laboratory studies: Cardiac biomarkers/enzymes

SAFETY CONSIDERATIONS

Conducting all diagnostic procedures under aseptic conditions. Appropriate prescription and use of medication. Making prompt and correct diagnosis.

PATIENT-CENTERED CARE**Nursing Care**

Client education on disease prevention and management.
Cardiac rehabilitation

Medications

- 1) Positive inotropic agents:
Cardiac glycosides, beta adrenergic and dopamine agonists, phosphodiesterase inhibitors.
- 2) Inhibitors of renin-angiotensin-aldosterone system: ACE inhibitors, angiotensin receptor blockers, and aldosterone antagonists
- 3) Beta adrenergic blockers
- 4) Diuretics
- 5) Direct vasodilators

Client Education

Patients with active symptoms of acute coronary syndrome (ACS) should be instructed to call emergency services and to go to the emergency department immediately if the suspected ACS symptoms last longer than 20 minutes at rest or are associated with near syncope/syncope or hemodynamic instability. Instruct patient to take all medication as directed. Advised on diet modification.

Therapeutic Procedures

Oxygen therapy
IV therapy
Angioplasty

Interprofessional Care

Cardiac rehabilitation: lifestyle advice, exercise, social support, recommendations about driving, flying, sports participation, stress management, and sexual intercourse.

Complications

Arrhythmias
Stroke
Cardiogenic shock
Mitral valve regurgitation
Rupture of the left ventricular wall or the interventricular septum.
Dressler's syndrome
Heart failure
Aneurysm of the left ventricular myocardium (10% of MI)