

OBJECTIVE



At the end of the class students will

be able to;

- Define CAD.
- ✓ Enumerate the risk factors of CAD.
- ✓ Describe the pathophysiology of CAD.
- Enlist the clinical manifestations of CAD.
- Enumerate diagnostic evaluation of CAD.
- Explain the management of CAD.

DEFINITION

 Coronary atherosclerosis is characterized by abnormal accumulation of lipid or fatty substances & fibrous tissues in the vessel walls. These substances block or narrow the blood vessels, reducing blood flow to the myocardium & resulting in coronary artery disease.

RISK FACTORS

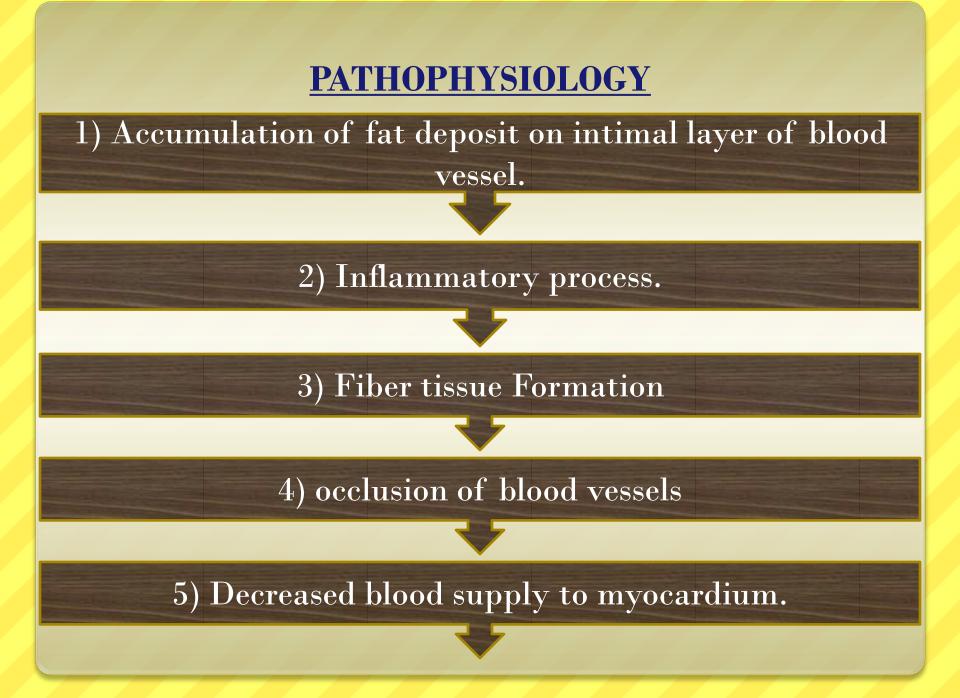
- > <u>MODIFIABLE FACTORS:</u>
- 1. Cigarette smoking.
- 2. Elevated lipid level in blood.
- 3. Elevated blood pressure.
- 4. Hyperglycemia.
- 5. Obesity.
- 6. Physical inactivity.

RISK FACTORS

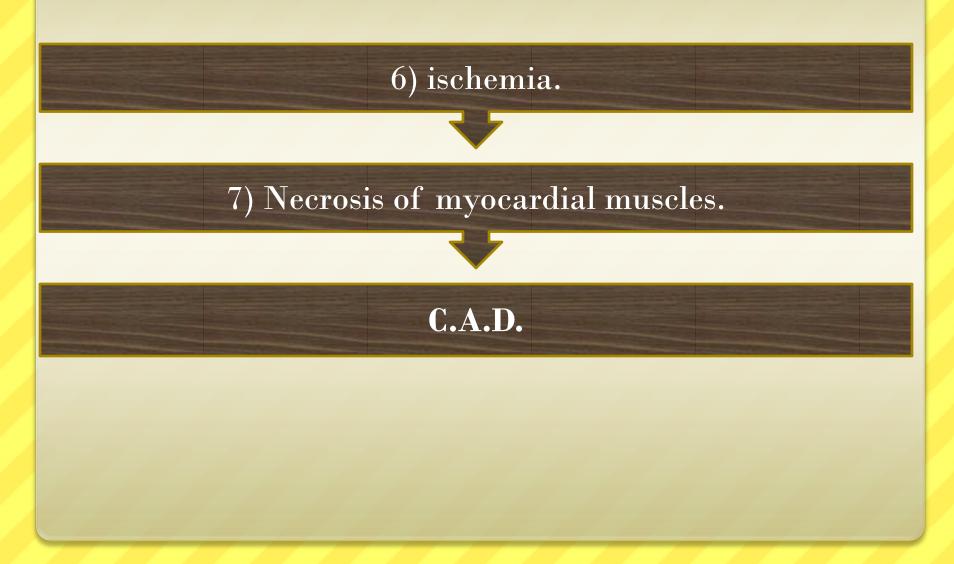
- 7. Use of oral contraceptives.
- 8. Infection (gingivitis).
- 9. Behavior pattern (stress, aggressiveness, hostility).
- 10. Geography. (Higher incidence in industrialized regions).

RISK FACTORS

- > <u>NON MODIFIABLE FACTORS:</u>
- 1. Positive family history.
- 2. Age, (35 55 years).
- **3**. Gender, (more common in men).
- 4. Race, (African Americans).



PATHOPHYSIOLOGY



CLINICAL MANIFESTATIONS

- 1. Chest pain.
- 2. Weakness or numbress in arms, wrist & hands.
- 3. Dyspneoa.
- 4. Diaphoresis.
- 5. Fatigue.
- 6. Palpitation

<u>CLINICAL MANIFESTATIONS</u>

- 7. Nausea & vomiting.
- 8. ECG changes.
- 9. Ventricular aneurysms.
- 10. Dysrhythmias, sudden death.
- 11. Hyperlipidemia.

DIAGNOSTIC EVALUATION

- 1. History taking.
- 2. Physical examination.
- **3**. Blood investigations.
- 4. Urine analysis.
- 5. Chest X-ray.
- 6. E.C.G.

DIAGNOSTIC EVALUATION

- 7. 2D ECHO.
- 8. Angiography.
- 9. Tread mill test (TMT).
- 10. Positron Emission Tomography, (P.E.T.).
- 11. Nuclear Imaging Studies.
- 12. C.T.-Scan.

MEDICAL:

- 1. To control cholesterol level.
 - Nicotinic acid.
 - Fibric acid.
 - Bile acid.
- 2. Anti hypertensive drugs, nitroglycerine, beta adrenergic blockers, calcium channel blockers, ACE inhibitors.
- 3. Antiplatelet, e.g. aspirin, clopidugre.

- 4. Anticoagulants, (Heparin).
- 5. Sedative analgesics, (Morphine sulphate IV.)

> <u>SURGICAL:</u>

- Coronary revascularization:
 - 1. P.T.C.A. (Percutaneous Transluminal Coronary Angioplasty).
 - 2. C.A.B.G. (Coronary Artery Bypass Graft Surgery).



- ✓ Assessment.
- ✓ Nursing diagnosis:
 - Acute pain related to hypoxia due to coronary artery obstruction.
 - 2. Ineffective tissue perfusion (cardiac) related to cardiac injury.

- 3. Anxiety related to disease condition.
- 4. Activity intolerance related to fatigue secondary to decreased cardiac output.
- 5. Ineffective therapeutic regimen management related to lack of knowledge of disease process.

