

- ① The term angina pectoris is applied to various forms of transient chest discomfort that are ~~at~~ attributable to insufficient myocardial oxygen.
- ② It is a common presenting symptom (typically, chest pain) among patients with ~~cor~~ coronary artery disease.
- ③ The pain often also spreads to the shoulders, arms, jaw, neck and back.
- ④ The usually happens when one or more arteries supplying the heart become hardened and narrowed.

Type of Angina Pectoris:

1. Stable Angina: (pain arising heart is working)
occurs when the heart is working harder than usual (exercise). Has a regular pattern which can be reversed by rest and medications. It is chronic and happen over months or even years.
2. Unstable Angina: [Crescendo] (rest position)
It can occurs when at rest, less common and more serious. It does not follow a regular pattern. Rest and medication do not relieve regular pattern it. A signal a future heart attack within a short time.
3. Variant Angina: (Prinz metal's / Microvascular):
Very rare and can occur at rest without any underlying coronary artery disease. Abnormal narrowing or relaxation of the blood vessels, reducing blood flow.

Sub:

to heart produce pain and relieved by drugs.

Symptoms:-

Angina is usually felt in the chest region as:

- ① Squeezing -
- ① pressure -
- ① heaviness -
- ① tightening
- ① burning or aching across the chest usually starting behind the breastbone.
- ① This pain often spreads to the neck, jaw, arms, shoulders, throat, back, or even the teeth.
- ① Other symptoms -
 - i) Indigestion -
 - ii) Heartburn
 - iii) Weakness
 - iv) Sweating
 - v) Nausea
 - vi) Cramping
 - vii) Shortness of breath.

Risk factors:

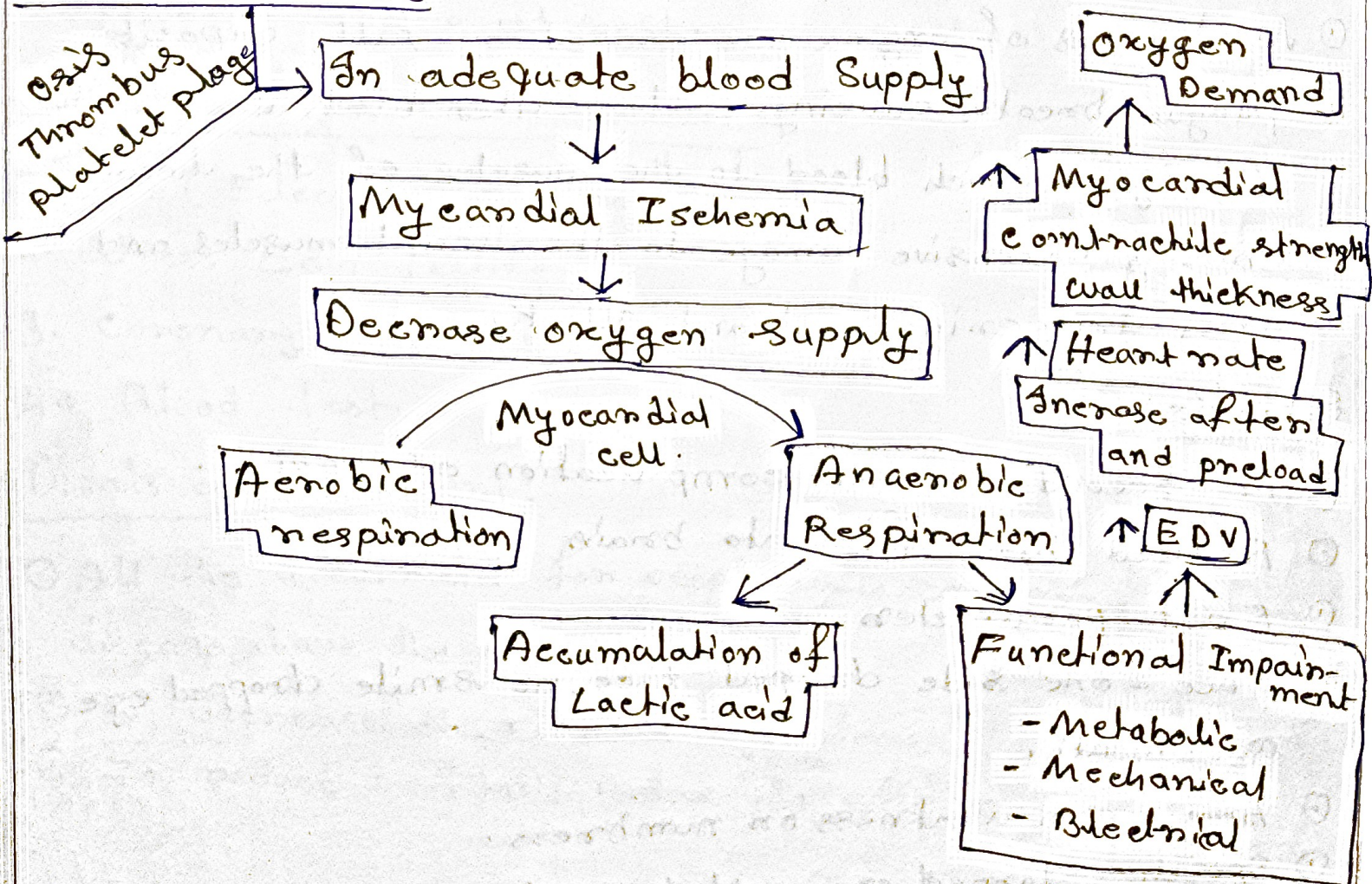
- ① Unhealthy cholesterol levels.
- ① High blood pressure.
- ① Smoking.
- ① Diabetes (Type I and II)
- ① Overweight or obesity.
- ① Metabolic syndrome, Inactivity.
- ① Unhealthy diet.
- ① Older age (men after 45 and women after 55)
- ① Family history of early heart disease.

Epidemiology:

- ① Angina due to ischemic heart disease affects approximately 112 million people (1.6% of the population)
- ② Slightly more common in men than women (1.7% to 1.5%.)
- ③ The prevalence of angina rises with increasing age.

Etiological factors:

- ① major risk factors
- ② Other medical problems.
- ③ Medications.
- ④ other cardiac problems.

Pathophysiology:

- ① Myocardial ischemia develops when coronary blood becomes inadequate to meet myocardial oxygen demand.
- ① This causes myocardial cells to switch from aerobic metabolism with a progressive impairment of metabolic, mechanical and electrical functions.
- ① Studies have shown that adenosine may be the main chemical mediator of anginal pain.
- ① During ischemia, ATP is degraded to adenosine, which, after diffusion to the extra-cellular space, causes arteriolar dilation and anginal pain.

Complications:

Heart attack:

- ① Most cases of angina are caused by fatty deposits.
- ① plaque breaks causing a blood clot block the supply of oxygen-rich blood to the muscles of the heart, causing extensive damage to the heart muscles and triggering a heart attack.

Stroke:

- ① The second common complication of angina.
- ① Reduced blood flow to brain
- ① Fast parameters
- ① Face - one side dropped face, no smile, dropped eye and mouth.
- ① Arms - arm weakness or numbness.
- ① Speech - Slurred or garbled speech
- ① Time - Should be taken care at the earliest.

Sadness, Anxiety and Depression:

- Psychological facts which often felt down depressed or hopeless.
- Found little interest or pleasure in doing things.

Diagnosis:

- ① A diagnosis of stable angina is based primarily on symptoms, such as chest pain.
- ① A diagnosis of unstable angina is made when there is - new onset angina that is severe and / or frequent.
- ① Chronic stable angina who develop more frequent severe, prolonged or more frequent easily triggered episodes - angina at rest.

Diagnostic Test and procedure:

1. ECG (Electrocardiogram)
2. Stress ECG Testing.
3. Coronary Angiogram.
4. Blood test.

Goals of treatment:

- ① All the treatment for people with coronary artery disease have the same goal.
- ① To decrease the elevated symptoms.
- ① To reduce mortality due to CAD progression.