

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai

Approved by Pharmacy Council of India, New Delhi.

Coimbatore -641035

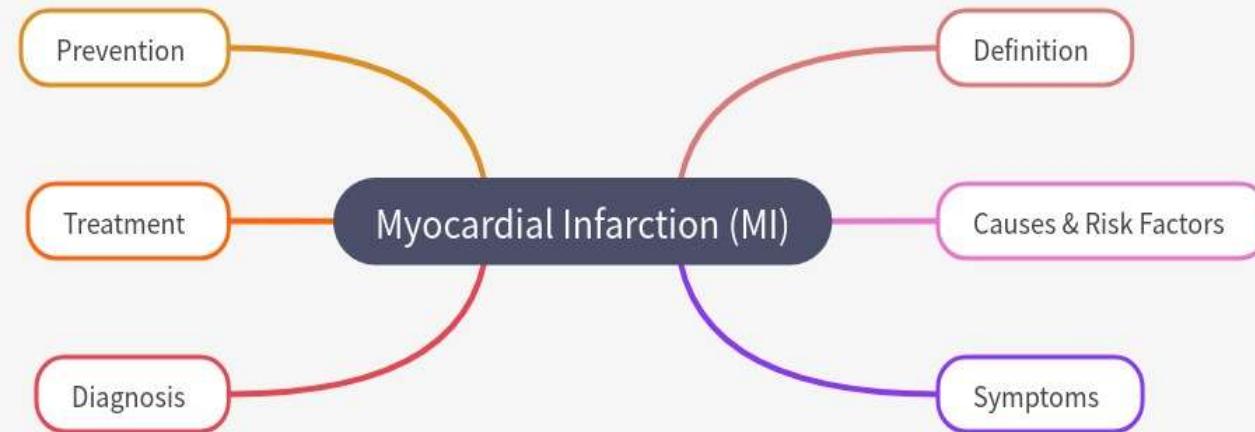


COURSE NAME : PHARMACOTHERAPEUTICS (ER20-24T)

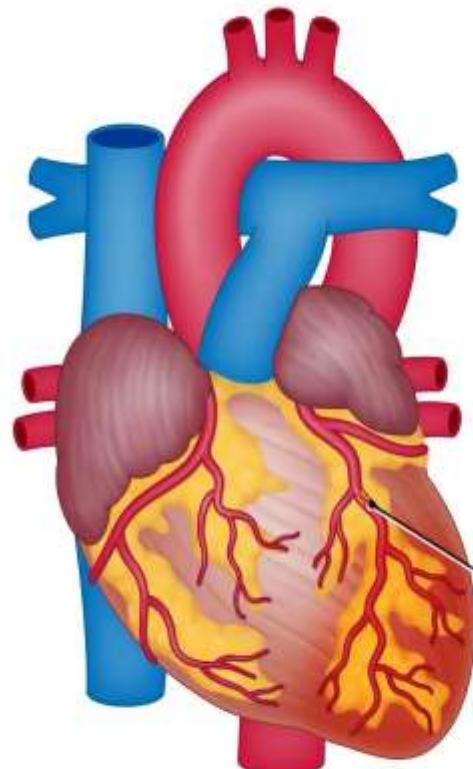
D. PHARM II YEAR

TOPIC : MYOCARDIAL INFARCTION

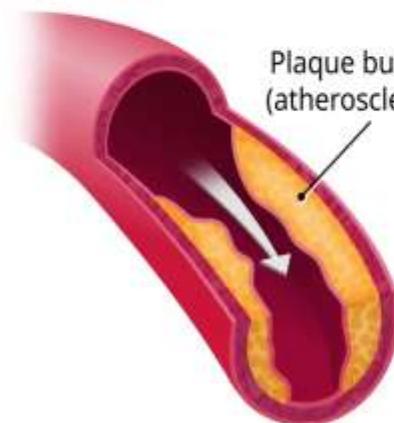
MINDMAP



Myocardial Infarction

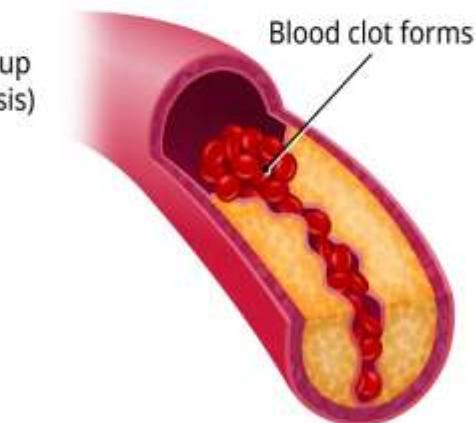


Narrowing of coronary artery



Reduced blood flow

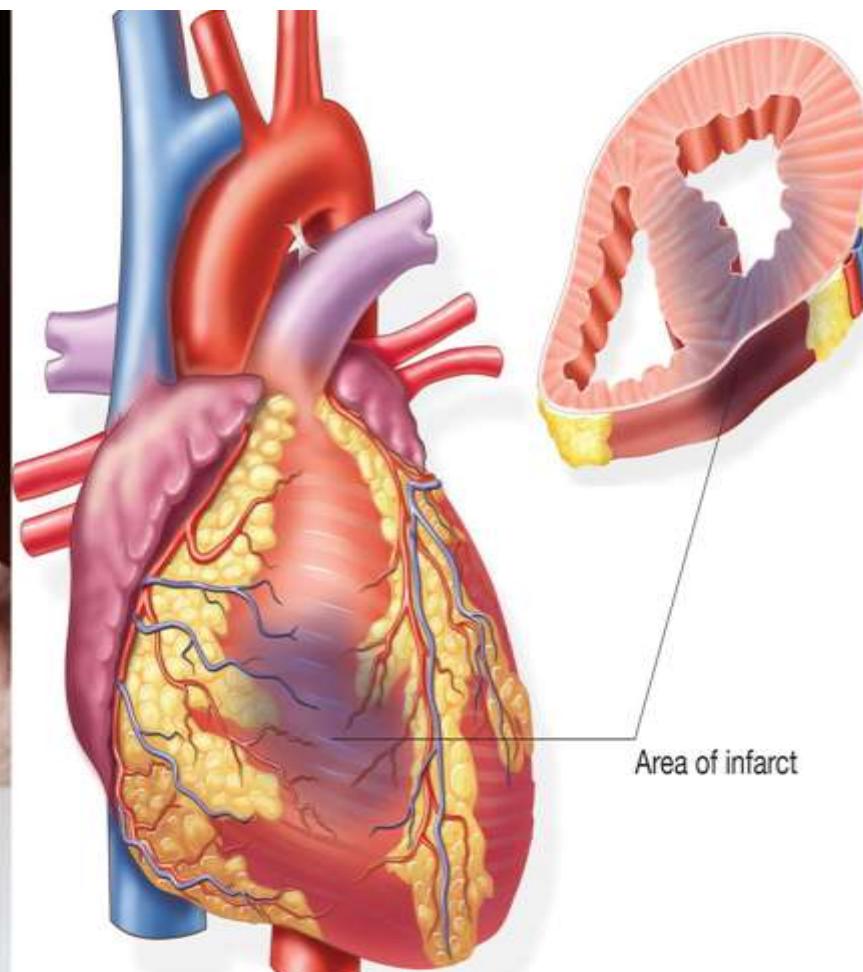
Blocked coronary artery

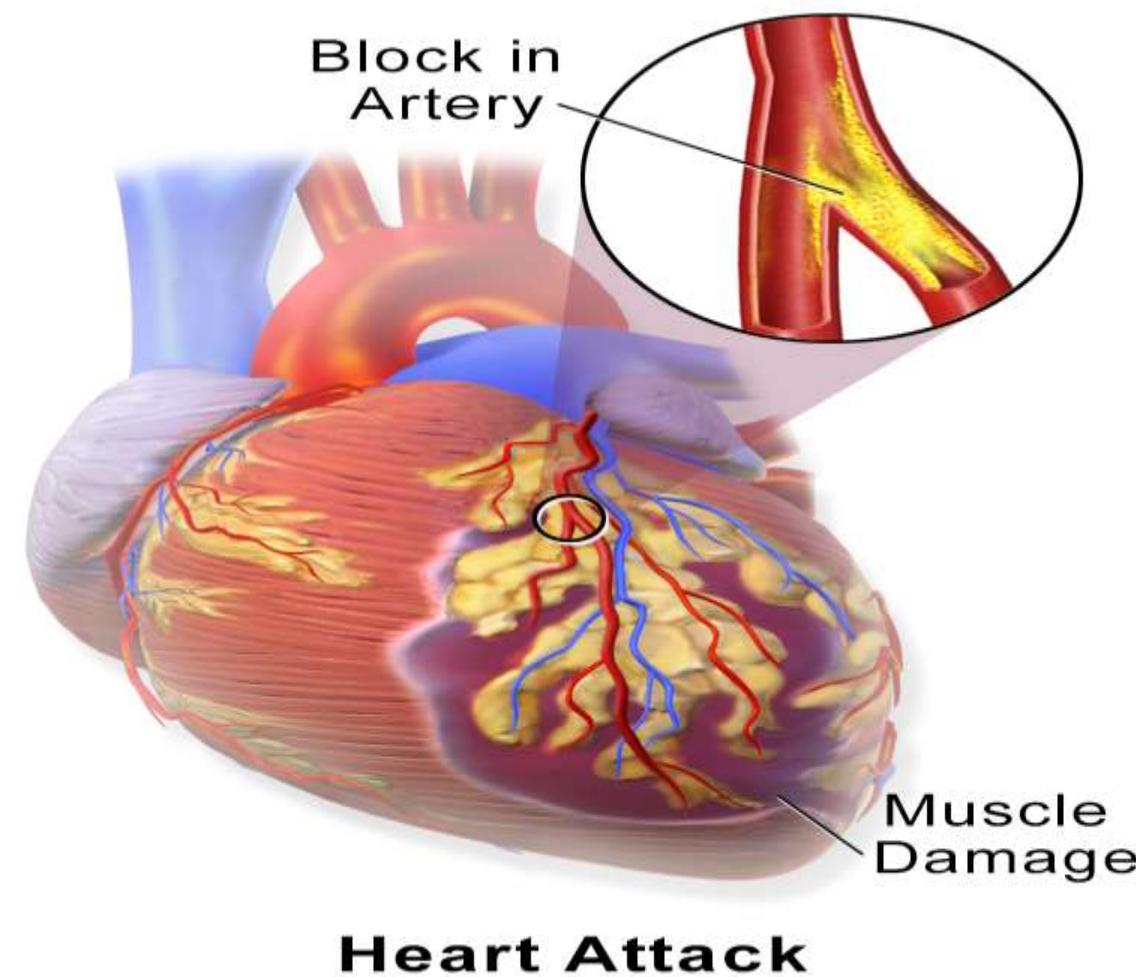


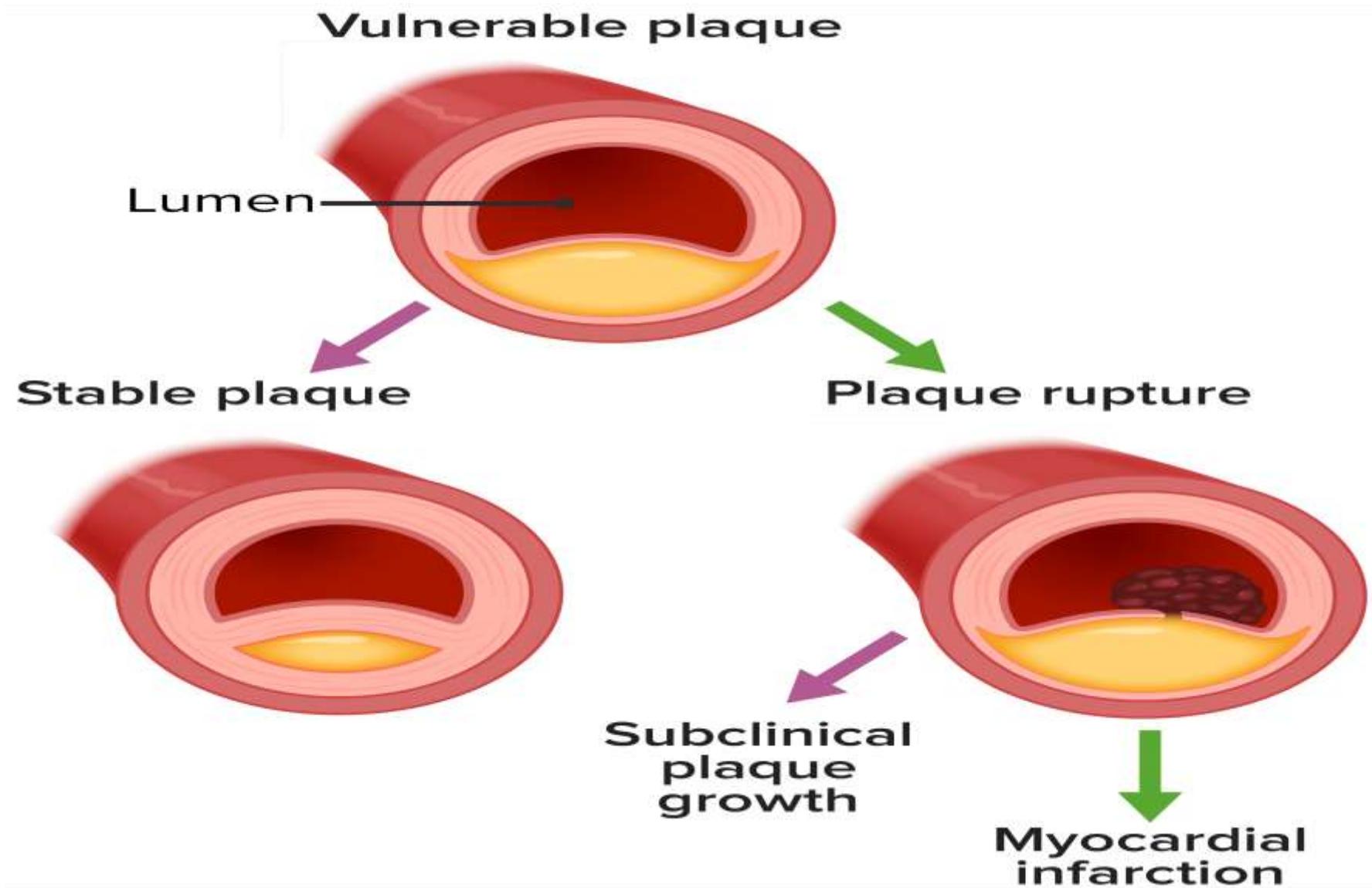
Lack of blood flow

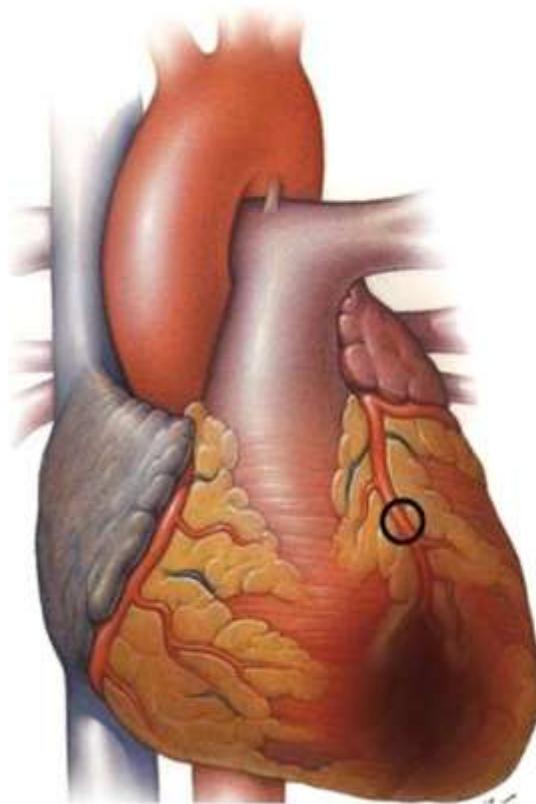
Progression of coronary artery disease leading to heart attack

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Plaque rupture with thrombus



MI Type 1

Vasospasm or endothelial dysfunction



MI Type 2

Fixed atherosclerosis and supply-demand imbalance



MI Type 2

Supply-demand imbalance alone



MI Type 2

Etiopathogenesis of IHD

Coronary
atherosclerosis

Superadded
changes in coronary
atherosclerotic
plaque

Non-atherosclerotic
causes

- Acute changes in plaque
- Coronary artery thrombosis
- Local platelet aggregation

- Vasospasm
- Stenosis of coronary ostia
- Arteritis
- Embolism
- Thrombotic diseases
- Trauma
- Aneurysms
- Compression

Myocardial Infarction: Risk, Diagnosis, Treatments

MI Symptoms

SYMPTOMS VARY BY SEX & ETHNICITY.
ABSENCE OF CHEST PAIN AND/OR YOUNG AGE LEAD TO
DELAYED DIAGNOSIS AND WORSE OUTCOMES

Angina

Neck/Jaw
Shoulder/Arm
Chest
Tightness
Stabbing
Dull
Sharp
Squeezing
Pressure



Dizziness/
Headache

Fatigue

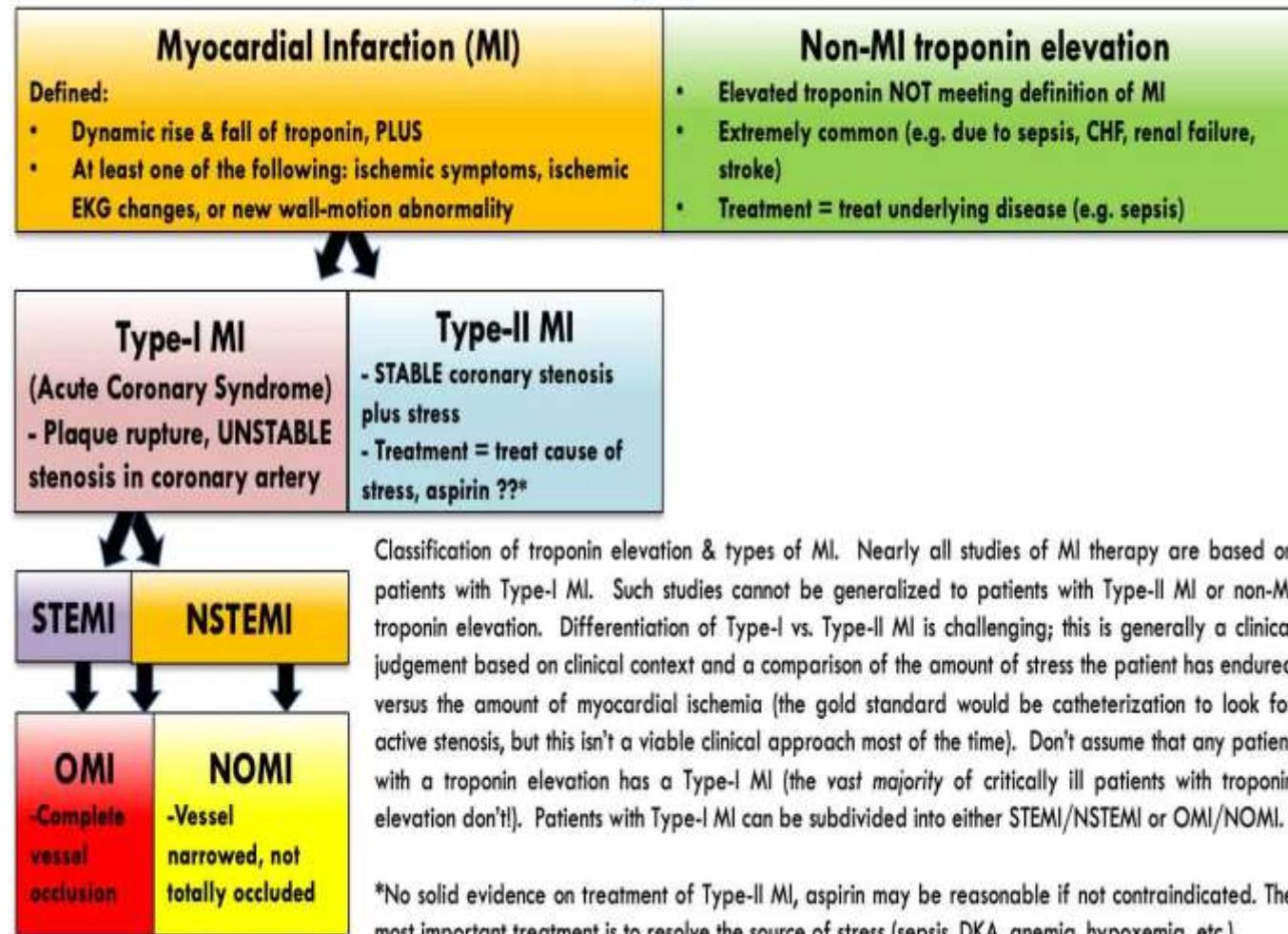
Dyspnea

Abd. pain

Anxiety/
Feelings
of doom



All patients with troponin elevation



The Internet Book of Critical Care

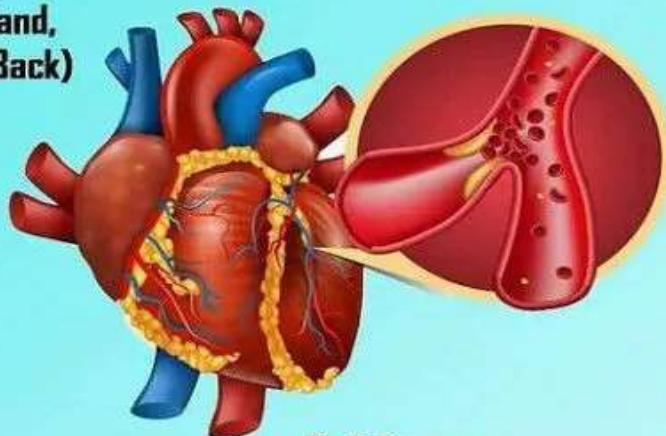
Myocardial Infarction

Definition

irreversible death (necrosis) of heart muscle secondary to prolonged lack of oxygen supply (ischemia)

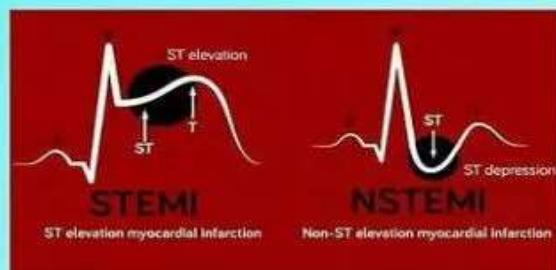
Presentation

- Chest pain
- Referred pain (Lt Hand, jaw, throat, Teeth, Back)
- Sweating
- SOB
- Nausea/Vomiting



Types

- STEMI
- NSTEMI



Management

- ASA
- Clopidogrel
- Statin
- Morphine
- Nitrates
- BBs, ACEi
- O2

Workup

- ECG
- Troponin I, T

Risk factors

- Hypertension
- Smoking
- Diabetes
- Obesity
- High cholesterol level

Treatment

- PCI or Fibrinolysis

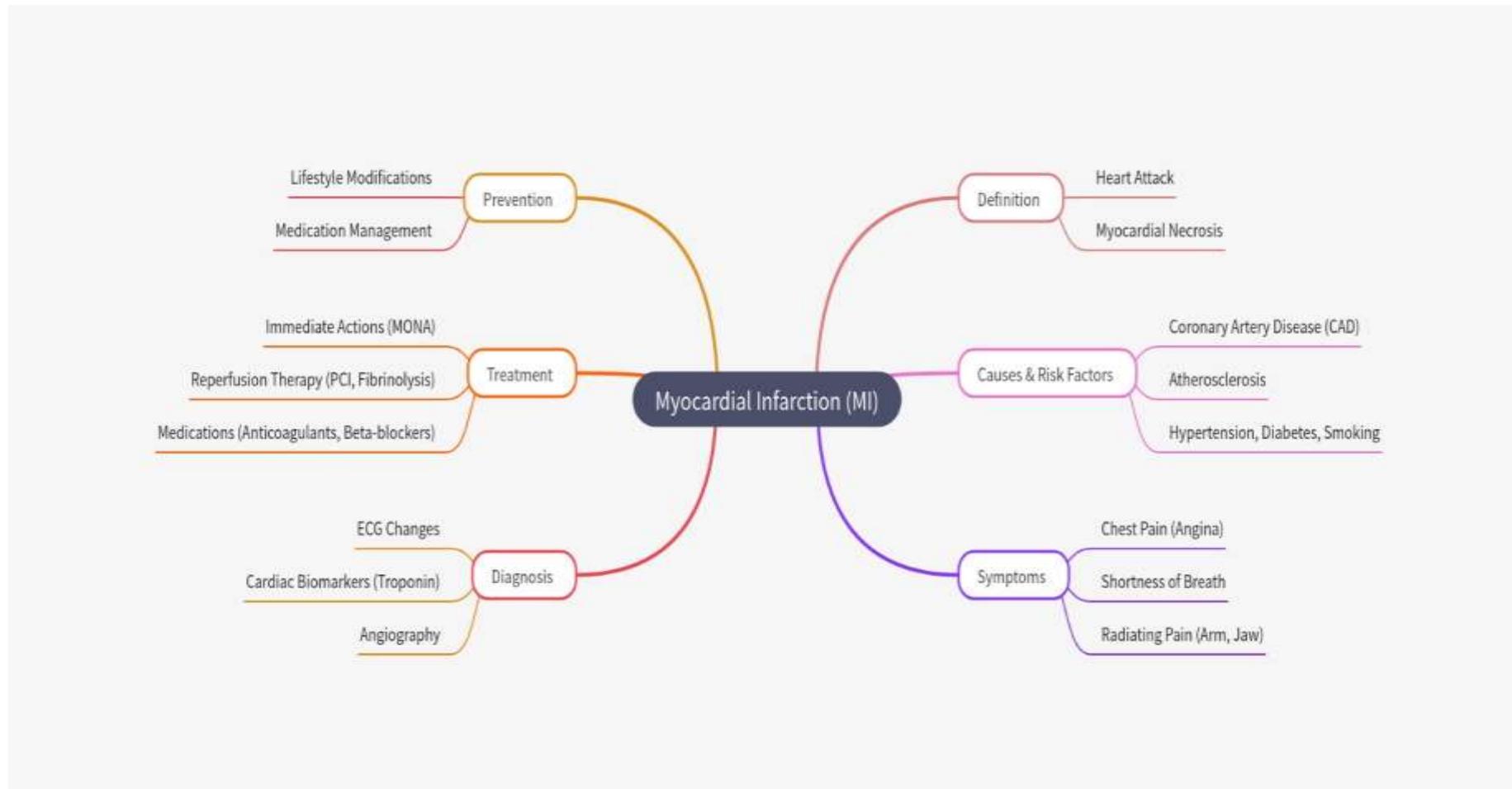
MYOCARDIAL INFARCTION PREVENTION



DRUG THERAPY IN MYOCARDIAL INFARCTION

1	Pain, anxiety and apprehension	<ul style="list-style-type: none"> •GTN, Morphine, Diazepam
2	Oxygenation	
3	Maintenance of blood volume	<ul style="list-style-type: none"> •Slow IV infusion of saline/dextrose
4	Correction of acidosis	<ul style="list-style-type: none"> •Due to lactic acid production •IV Sodium bicarbonate infusion
5	Prevention and treatment of arrhythmias	<p>Beta blockers, Lidocaine</p> <ul style="list-style-type: none"> •Arrhythmias- Prophylactic Metoprolol (IV/Oral) & continued for few days ↓ incidence of arrhythmias, mortality & infarct size •Tachyarrhythmias- IV Lidocaine/Procainamide/Amiodarone •Bradycardia/Heart block- Atropine/Electrical Pacing

SUMMARY

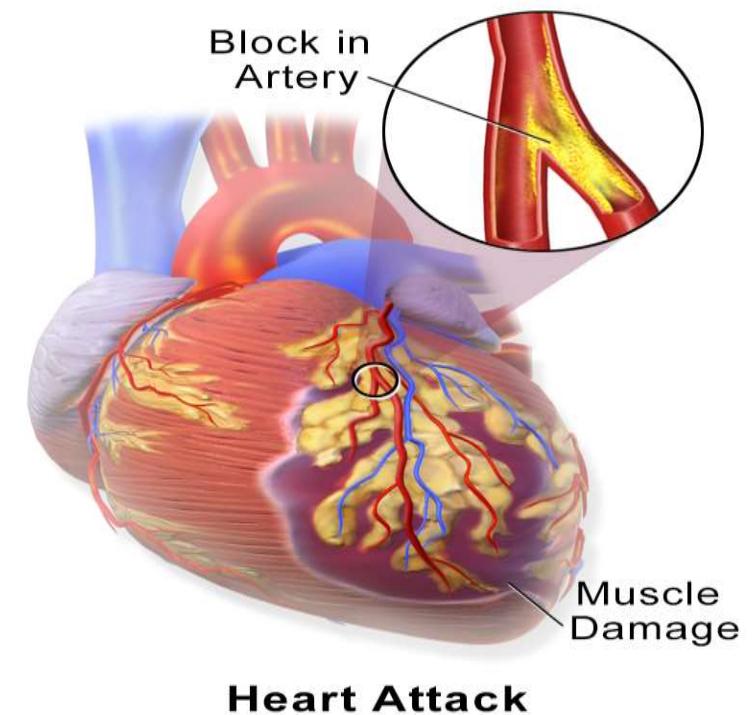


ASSESSMENTS



1. On the evening shift, the triage nurse evaluates several clients who were brought to the emergency department. Which of the following clients should receive highest priority?

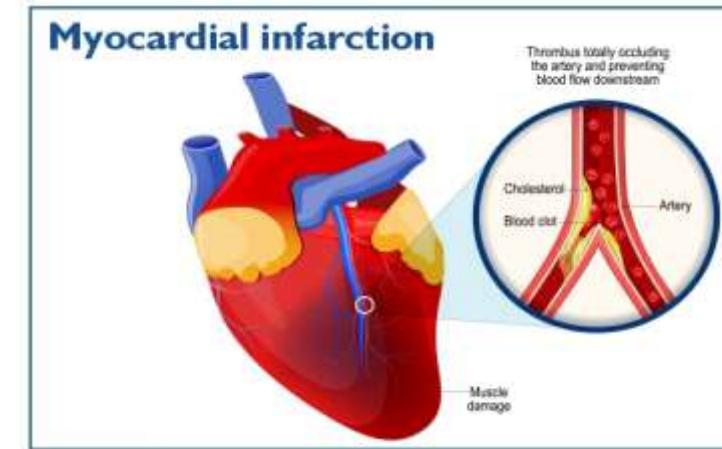
- a) An elderly woman complaining of a loss of appetite and fatigue for the past week
- b) A football player limping and complaining of pain and swelling in the right ankle
- c) A 50-year-old man, diaphoretic and complaining of severe chest pain radiating to his jaw
- d) A mother with a 5-year-old boy who says her son has been complaining of nausea and vomited once since noon



2. Which of the following is the most common symptom of myocardial infarction?



- a) Chest pain
- b) Dyspnea
- c) Edema
- d) Palpitations





3. An early finding in the EKG of a client with an infarcted myocardium would be:

- a) Disappearance of Q waves
- b) Elevated ST segments
- c) Absence of P wave
- d) Flattened T waves



Pericarditis



BER



LBBB

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Thank you !