Sub: Angina pectoris

⊙ It is a latin from.

Angnia pectoris, commonly known as angina, is the sensation of chest pain, pressure, often due to not enough blood flow to the heart muscle as a result of obstruction or spasm of coronary arteries.

Angina = to strangle - (constriction of neck)

Pectoris = pain of chest / sensation of chest pain.

⊙ In heart is present muscle is know as cardiac muscle.

⊙ In heart muscle there is a artery is present which supply to flow the blood to heart is known as coronary artery.

⊙ when a obstraction ~~or any kind of~~ like cholesterol fat or other thing is collect this artery, the artery will get thin or narrowing.

⊙ when the artery is narrowing the blood supply become less to the heart muscle.

⊙ Reduced blood flow → Heart —causes→ Ischamia to heart muscle - or lack / less amount of O_2 to heart ↓ causing chest pain → Angina.

⊙ The pain may radiate to back, neck, left shoulder, jaw or teeth, right arm, abdomen etc.

Sub:

~~classification:~~

ⓐ Epidemiology:

It occurs in both man and woman of any ages but more common in mediate age person an older ages.

Angina due to ischemic heart disease affects approximately 1/2 milion people.

The prevealence of angina rises with increasing age.

classification:

There are classify mainly three types -

i) Stable/ classical/ Typical angina.
ii) unstable angina.
iii) varient / vasospastic / prinzmetal's angina.
(প্রিন্জমেটাল)

And,

iv) Microvascular angina.
v) Angina decubitus. also include in this classificat
(ডিকুবিটাস)

Stable angina: (when the heart is working the increase pain)

It is most comonon type of angina. It occurs in rest condition there is no pain inthat but when physical exersize or any kind of stress means emotinal excitment there is chest pain and it is relieved by rest within few minutes or taking

buccal or sublingally (tablet is taken under the tounge)

⊙ This type of angina ~~bdo~~ stenosis 70% of artery.

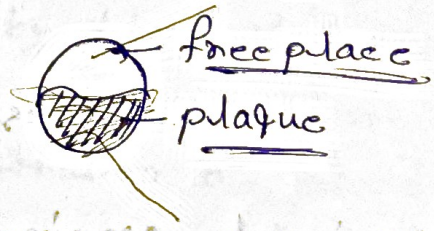
Stenosis → blocked by plaque (accumulation of cholesterol & fat) ~~something like that~~ of artery)

when physical exercise heart work harder means can't meet demands of heart muscle (myocardium)

Reason →

Atherosclerosis of coronary artery.

⊙ In the heart muscle there are three ~~type~~ layer – ① epicardium
② myocardium
③ Endocardium.



When endocardium (outer layer) is hypertrophy / incarse the size of endocardium heart muscle (wall) is thickened.

In endocardium there are ~~most~~ outer surface area is subendocardium

In coronary heart disease ~~subendocardium~~ not supplying the blood its ischamic condition. of subendocardium. and release of adenosine bradykinin and other substances and causing sensation of pain (left arm, jaw, shaluders and back
shortness of breath.

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Unstable:

It can occurs when rest and exercise or stress some pain is there. This pain does not go away.

In coronary artery Rupture / breaking of atherosclerotic plaque and thrombosis (blood clot on plaque) to less area for blood flow. and causing subendocardium iselemia.

High risk miocardial infdaction.

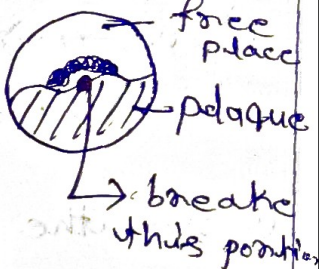
Rupture of atherosclerotic plaque

↓

Thrombosis (blood clot on plaque)

↓

less are for blood flow to the heart.

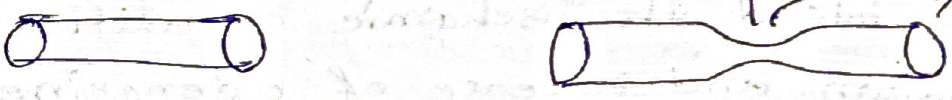


Varient angina:

It can occurs anytime either rest and exercise condition pain is there.

may or may not be have atherosclerosis. to the patient

majorly coronary artery vasospasms.



constricted / very small area of the artery.

constricted → Severe all layer of hear muscle affected

Because transmural ischamia

↳ occuring across the entire wall of an organ.

Microvascular angina - abnormalityes in the small arterygies. (decarese the blood flow)

Etiological factors:

- mayor risk factors.
- other medical problems.
- Medications.
- other cardiac problems.

Etiology:

- Atherosclerosis.
- ~~Blocad~~ Blockage of coronary artery by blood clot or compression.
- coronary artery vasospasms. (constrition of blood vessule)
- Inflamation of infection to coronary artery.
- Injury to coronary artery.
- poor dysfunctoning of small arteries. (abnormality of artery)
- use of cocaine.

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Diagnosis

Pathophysiology:

In adequate blood supply

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Myocardial Ischemia.

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Decrease oxygen supply.

Myocardial cell.

Aerobic respiration.

Anaerobic respiration

Accumulation lactic acid.

Myocardial ischamia.

① Miocardial energy Supply, (O_2 and energy Substrate from glucose and free fatty acids is demand)

② Reduction in the diameter of coronary artery.

③ Inability of O_2 extraction elevation of myocardial demand.

Functional Impairment
- Metabolic
- Mechanical
- Electerical.

↓

EDV

↓

Heart rate increased after and preload.

↓

Myocardial contractile strength wall thickness.

↓

oxygen demand

Diagnosis:

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

Diagnostic test and procedure:

1. EcG → depression of ~~este~~ ST segment elevated or deleted.
2. Stress EcG testing.
3. Echocardiograph which ultra sounds.
4. coronary Angiogram.
5. Blood test.

Goals of treatment:

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

Symptoms:

Angina is usually felt in the chest region as:

Squeezing – feeling pressed

Pressure –

Sub:

heaviness -

tightening -

- ⊙ burning or aching across the chest usually starting behind the breast bone.
- ⊙ This pain often spreads to the neck, jaw, arms, shoulder throat, back or even the teeth.
- ⊙ Other symptoms -
  - i) Indigestion.
  - ii) Heart burn -
  - iii) Weakness -
  - iv) Sweating - (accumulation of fluid)
  - v) Nausea -
  - vi) cramping - (accumulation)
  - vii) Shortness of breath.

Risk factors:

- ⊙ unhealthy cholesterol levels.
- ⊙ High blood pressure.
- ⊙ Smoking.
- ⊙ Diabetes.
- ⊙ Obesity / Overweight.
- ⊙ Metabolic syndrome, Inactivity.
- ⊙ unhealthy diet.
- ⊙ older age &
- ⊙ Family history of early heart disease.

Complication:

Heart attack:

- Most cases of angina are caused by fatty deposits.
- plaque breaks causing a blood then 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:

- The second common complication of angina.
- Reduced blood flow to brain.
- Fast parameter.
- Face - one side dropped face, no smile dropped eye and mouth.
- Arms - arm weakness or numbness.
- Speech - ~~Sp~~ slurred or garbled speech.
- Time - Should to taken care at the earlist.

Stress, Anxiety and depression:

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