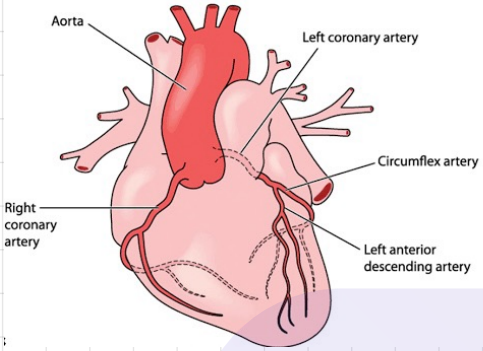
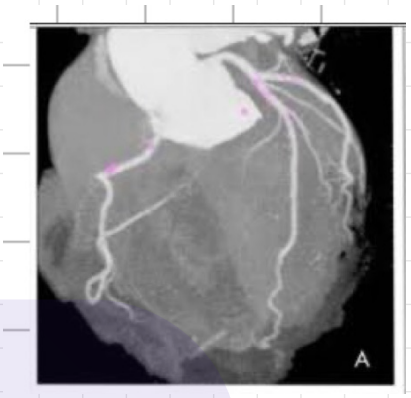
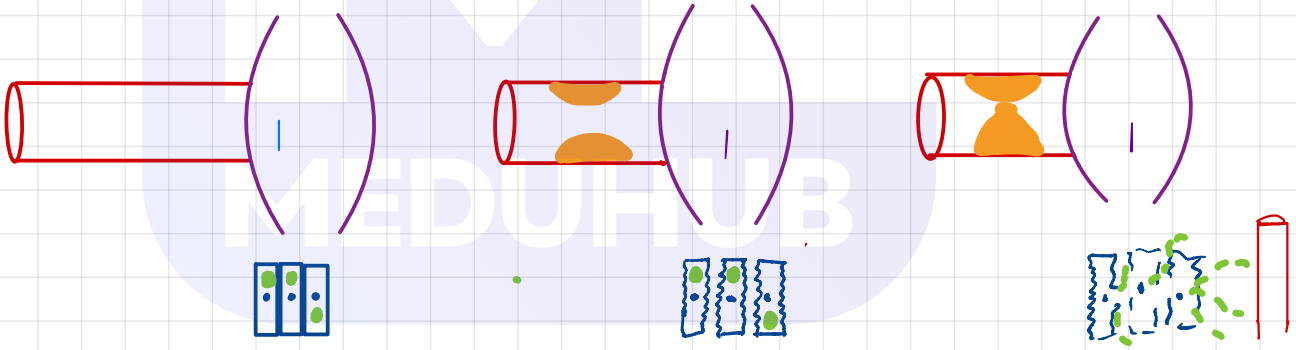


CHAPTER 4
CORONARY ARTERY DISEASE



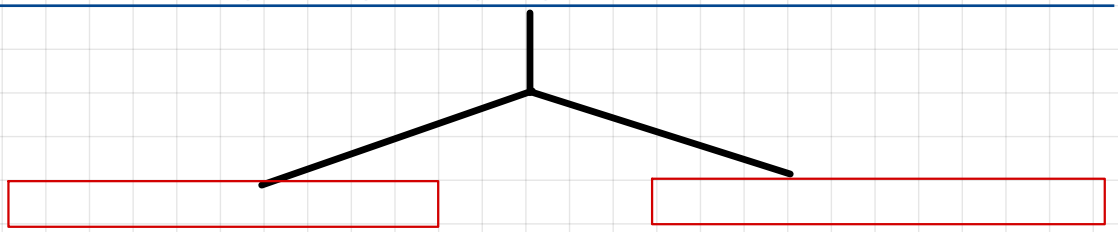




Cardiomyocyte | Cardiomyocyte | Cardiomyocyte

chest pain			
Cardiac enzyme in blood (TROPONIN)			

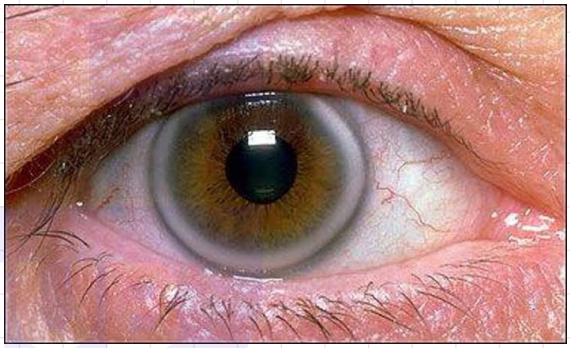
RISK FACTORS OF CORONARY ARTERY DISEASE



Extra point







- Alcohol

CHEST PAIN

1 - character -…… …….. Location - ……
- radiation to - ……
- associated with - ……

2 - triggered by -……

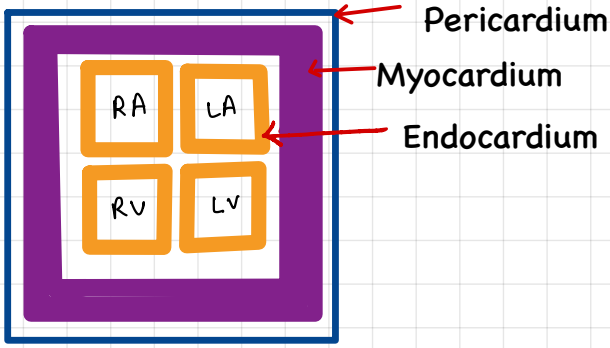
3. - relieved by -……

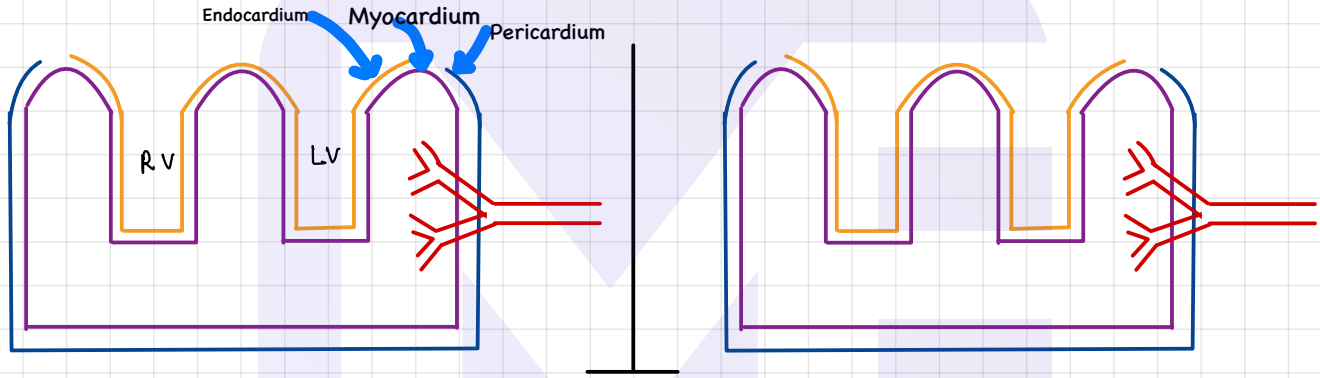


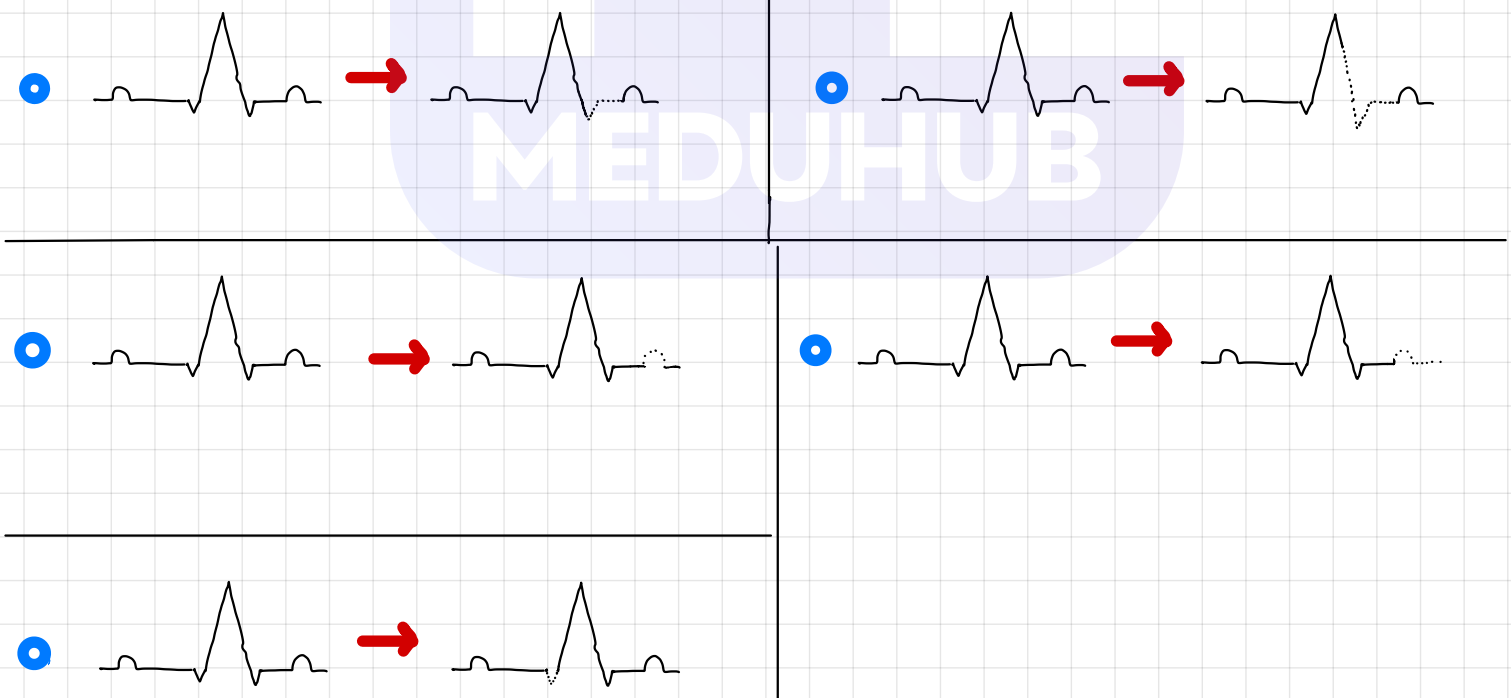
Patient puts fist on chest c/a -

Investigation in CAD

ECG:

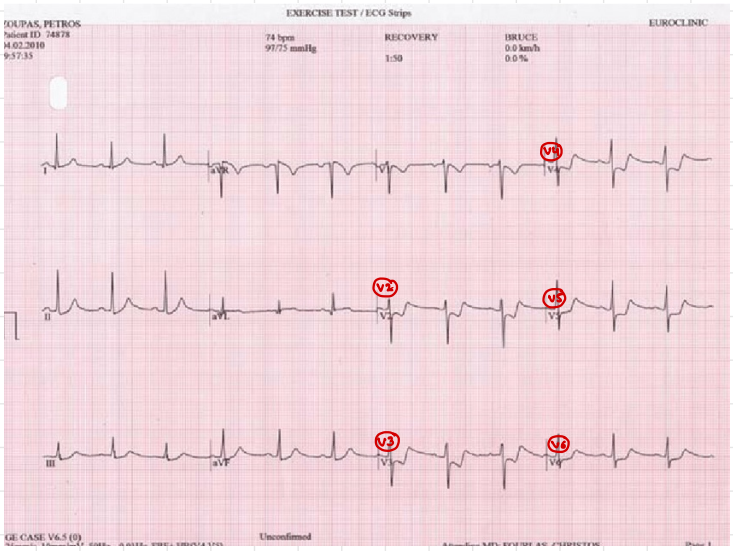


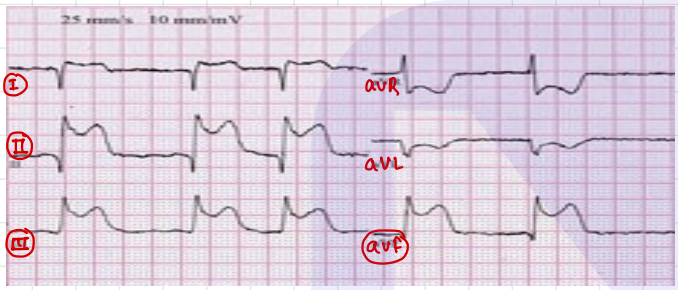


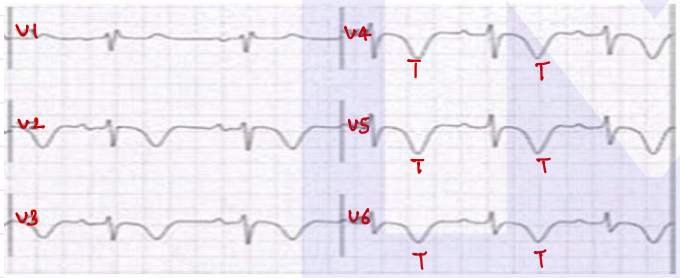


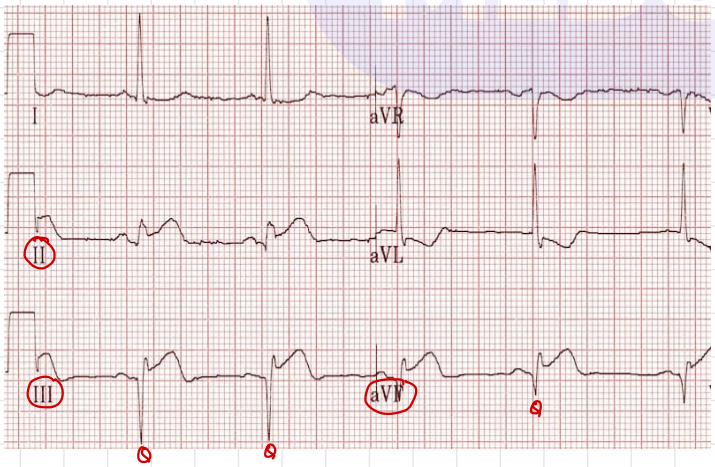
Extra point - T wave inversion can also be seen in SAH .

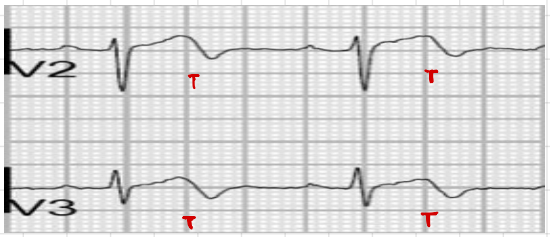
CARDIOLOGY:CORONARY ARTERY DISEASE



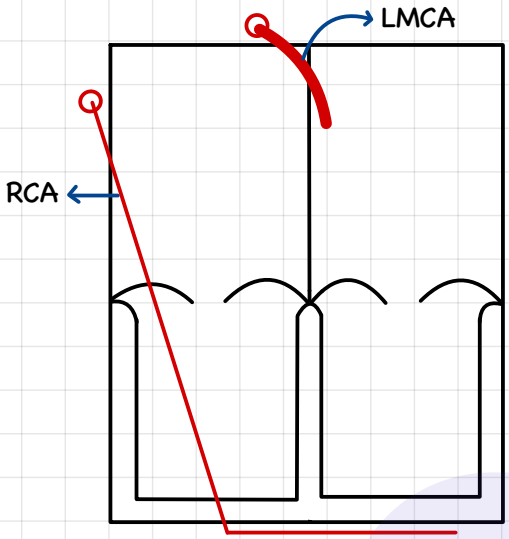








LOCALISATION OF LESION VIA ECG

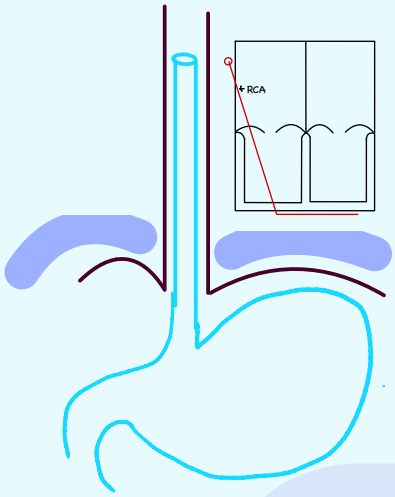


ECG Leads	Localisation of MI	Artery involved
V1-V4		
I/aVL/V5/V6		
I/aVL/V1-V6		
II/III/aVF		
V1-V2		
I/aVL		

Options - anterior wall MI / lateral wall / high lateral wall / septal/ inferior / extensive

Blood vessel - LAD / LCX / LMCA / RCA

EXTRA POINT



Inf. Wall MI

If V4R lead → showing changes →

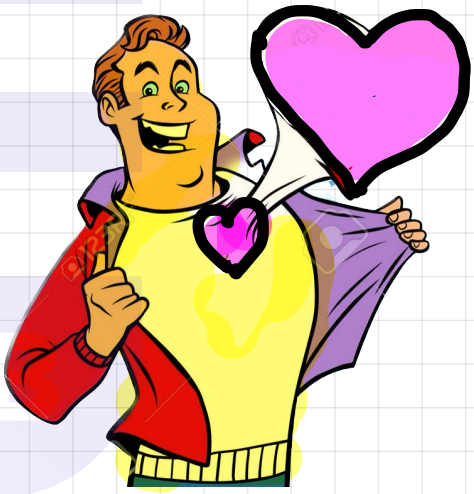
CARDIAC MARKERS

Earliest to increase -

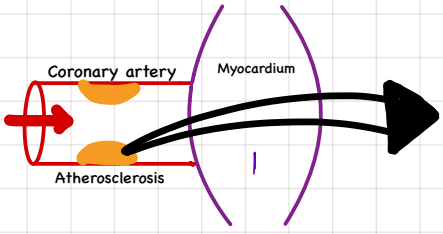
Best -

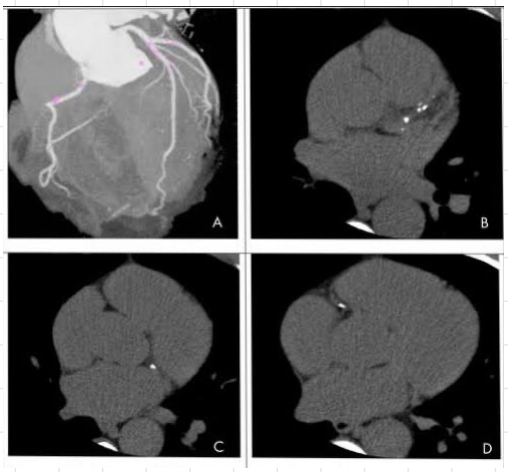
Marker of reinfraction -

Future predictor -



CT-SCAN — NCCT





MC artery to undergo atherosclerosis →

CONCEPT OF STRESS TEST



HR –		
Myocardial ischemia – Chest Pain –		

Stress → → Ischemia–

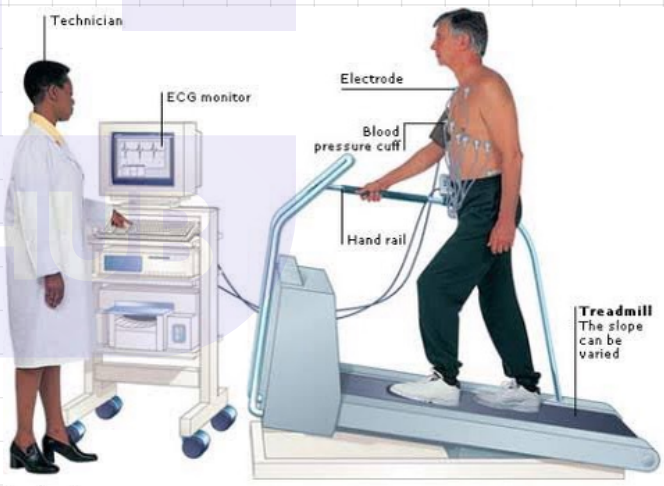
Treadmill test

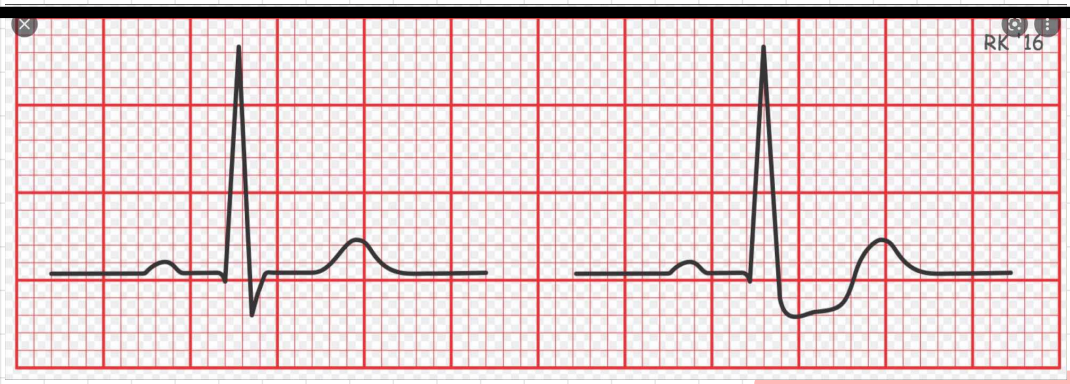
Protocol –

Target HR –

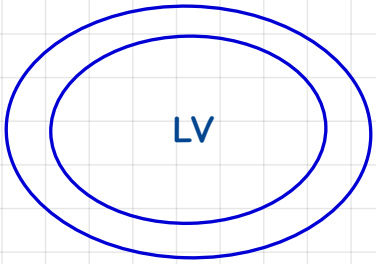
85 % of target HR

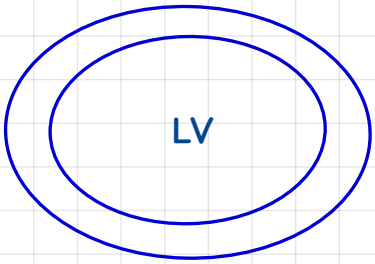
- Achieved
- Not Achieved





2-D ECHO





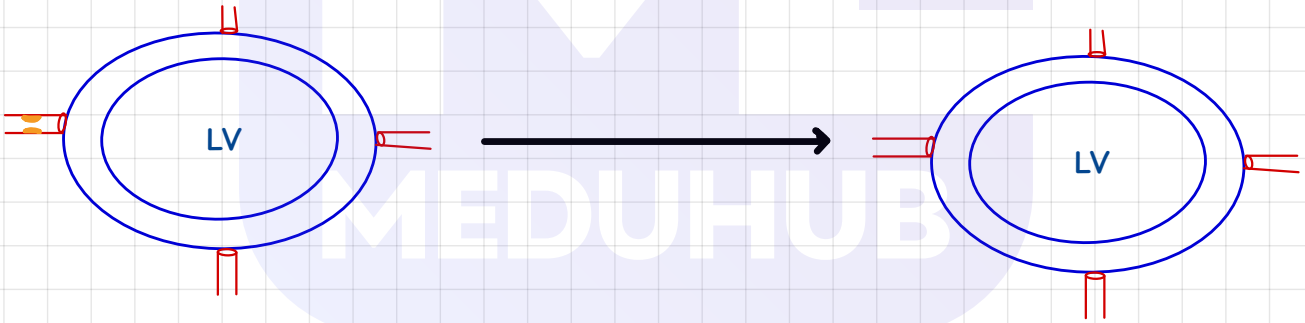
RWMA -Regional wall motion abnormality



Unfavourable condition

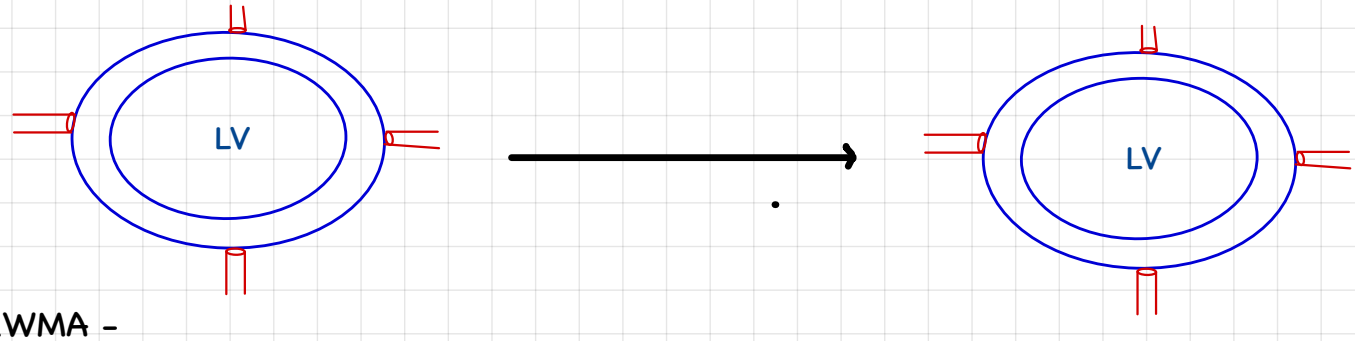


Favourable condition



RWMA -

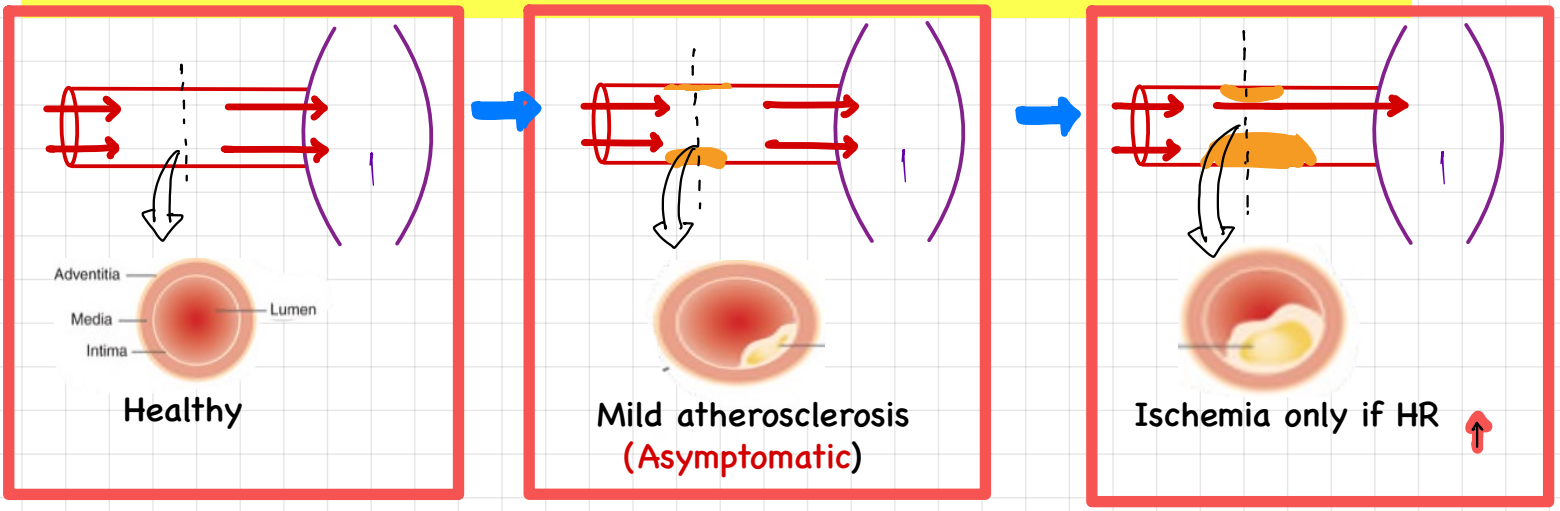
Myocardium viability -

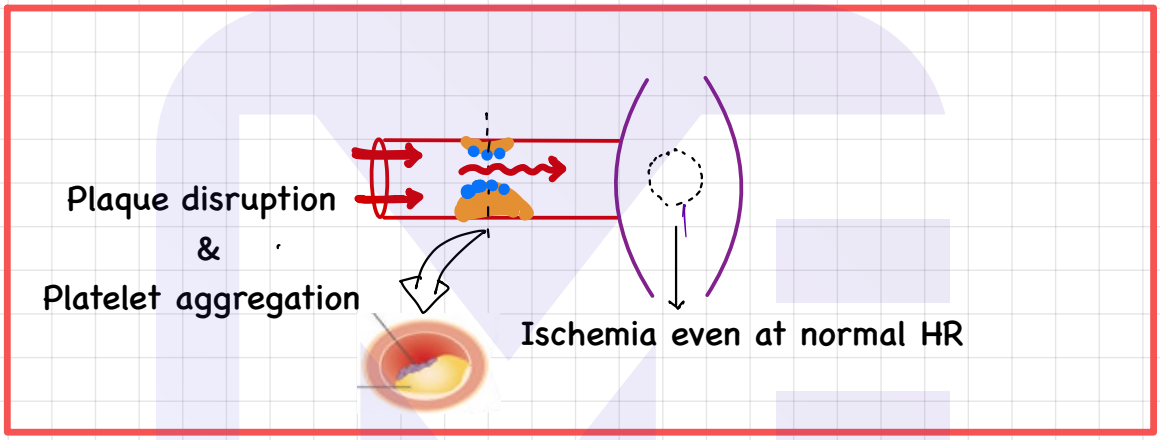


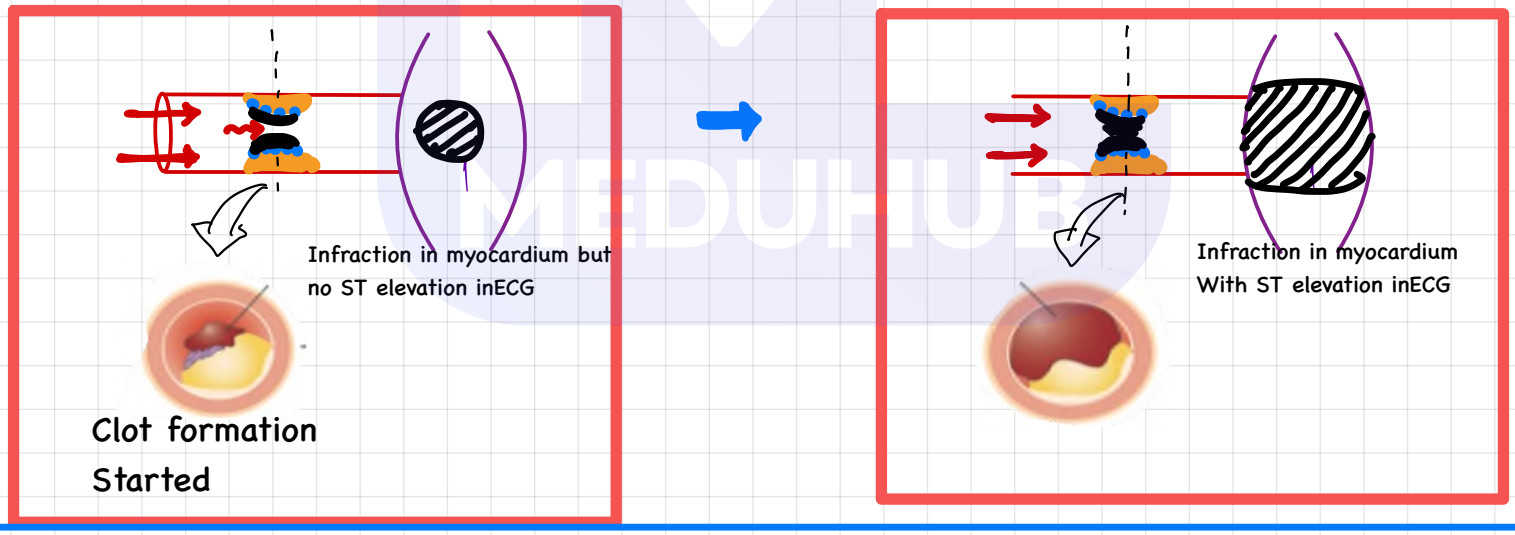
RWMA -

Myocardium viability -

CORONARY ARTERY DISEASE/ISCHEMIC HEART DISEASE





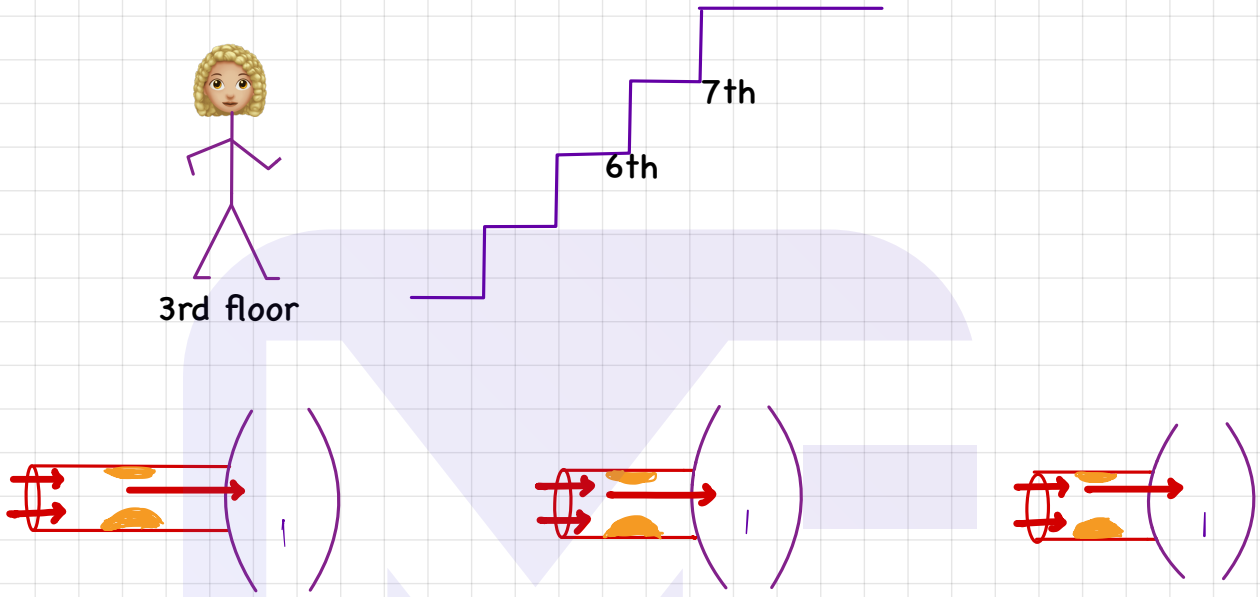


Chest Pain

	ECG	Troponin

STABLE ANGINA [ ]

C/F:



INV.

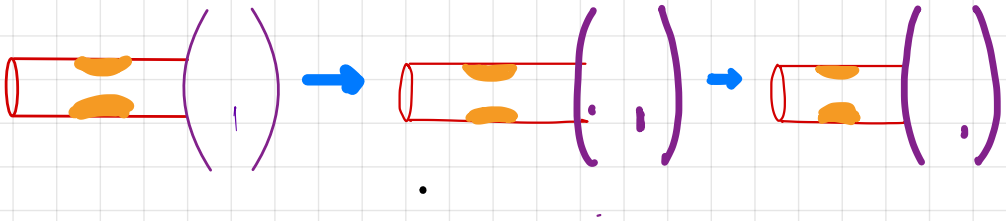
Rx –

Maximum mortality reduction by –

MC side effect of Nitrate –

USA [Unstable Angina] - NSTEMI COMPLEX

Pathogenesis:



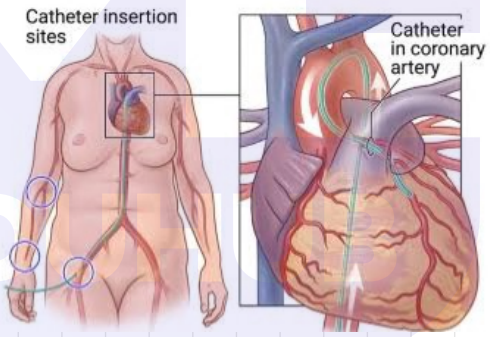
C/F:

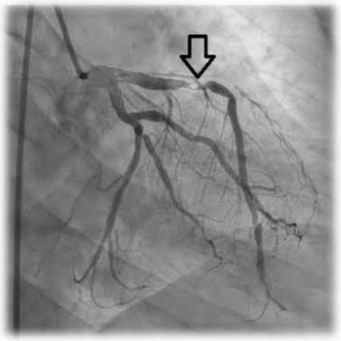
Investigation:

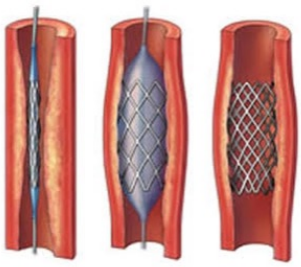
ECG -

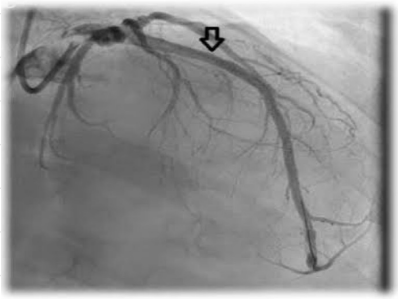
Cardiac enzyme-

Rx:





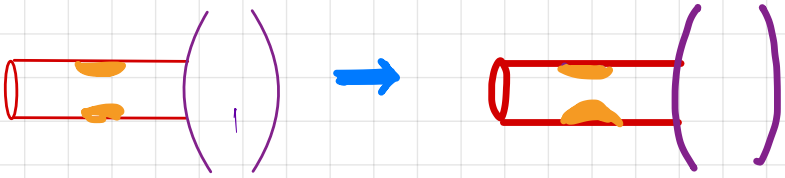




So in USA-NSTEMI – plan for PCI if ……score is…… ……

*PCI- Percutenous coronary intervention

ST-ELEVATED MI [STEMI]



Pathogenesis:

C/F:

Investigation: ECG –

TROPONIN –

Rx: →

→ ★ if PCI facility is more than ……. Hours away

↓

Then go for ……

Door to needle time =< …. Min. Agents

Chest pain & ST elevation subsided in next 90 min

Yes → Plan for ……

No → Plan for ……

→ ★ if PCI facility is less than ……. Hours away

↓

Then go for ……

Door to needle time

Other treatment - same as ……..

EXTRA POINTS

After PCI — dual antiplatelet is given for — _____.

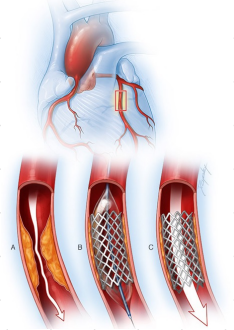
Inf. Wall MI — RVMI — HR

— BP

So in Inf wall MI if patient in shock before doing thrombolysis , give ……

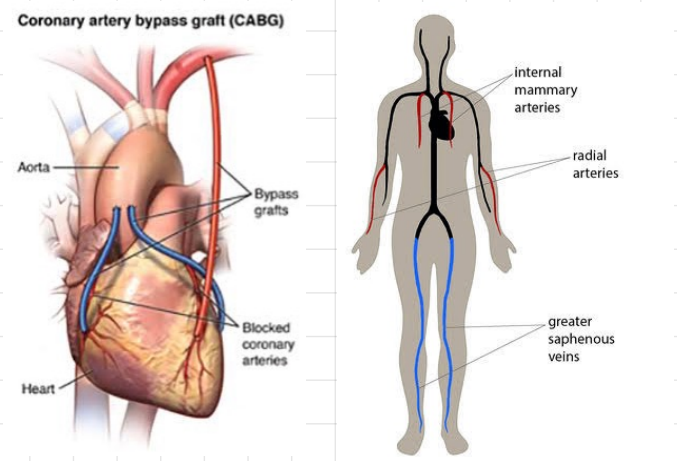
ANGIOGRAPHY

If single vessel disease [SVD] or double vessel disease [DVD]



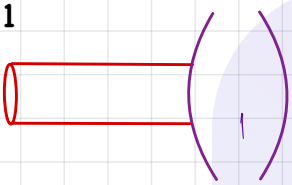
PTCA-Percutenous transluminal coronary angioplasty*

If TVD (triple vessel disease)

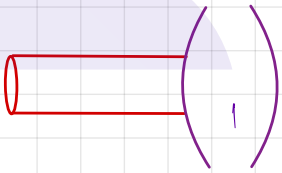


TYPES OF MI

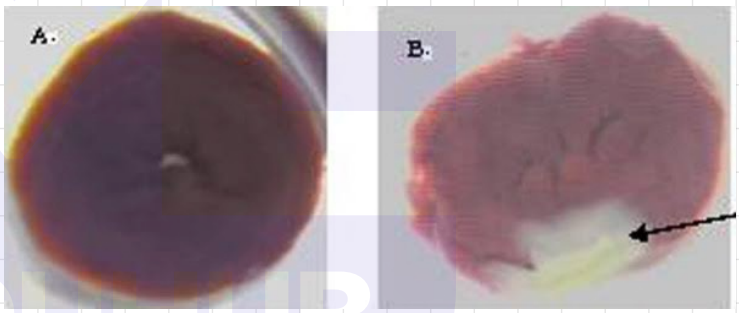
Type 1



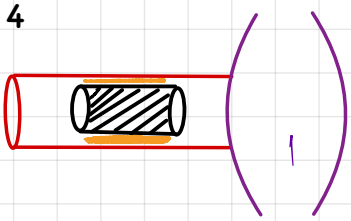
Type 2



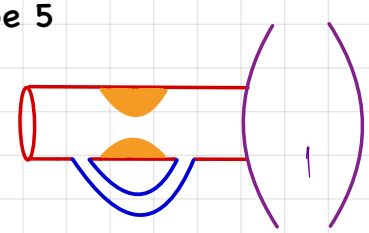
Type 3



Type 4



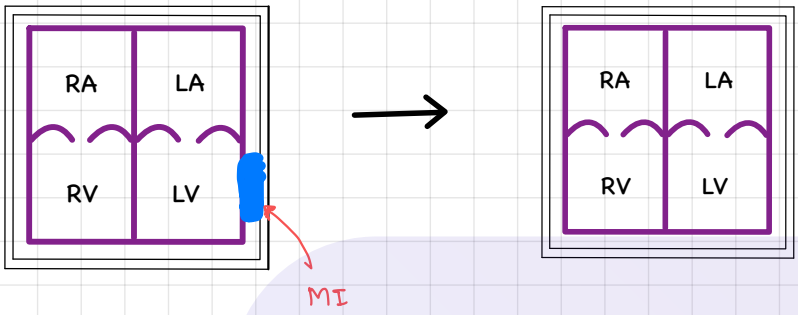
Type 5



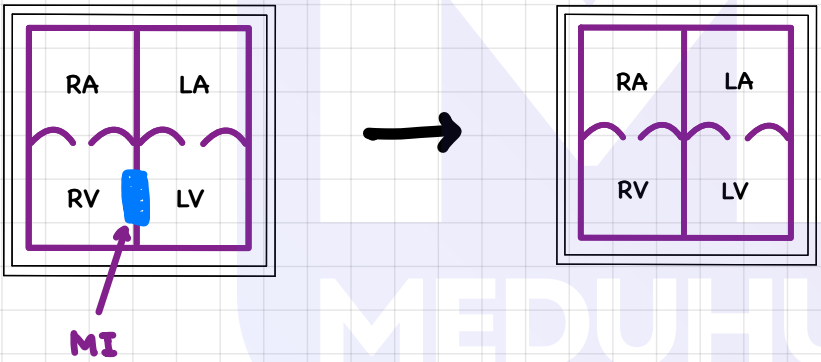
COMPLICATIONS OF MI

a) with 1st few hours

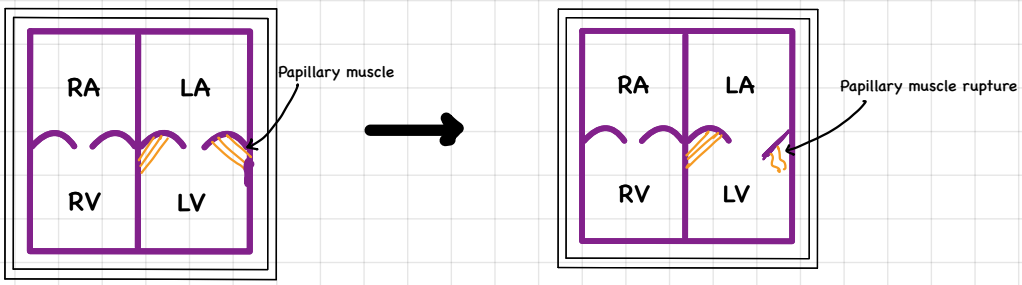
b) after 4 - 7 days of MI



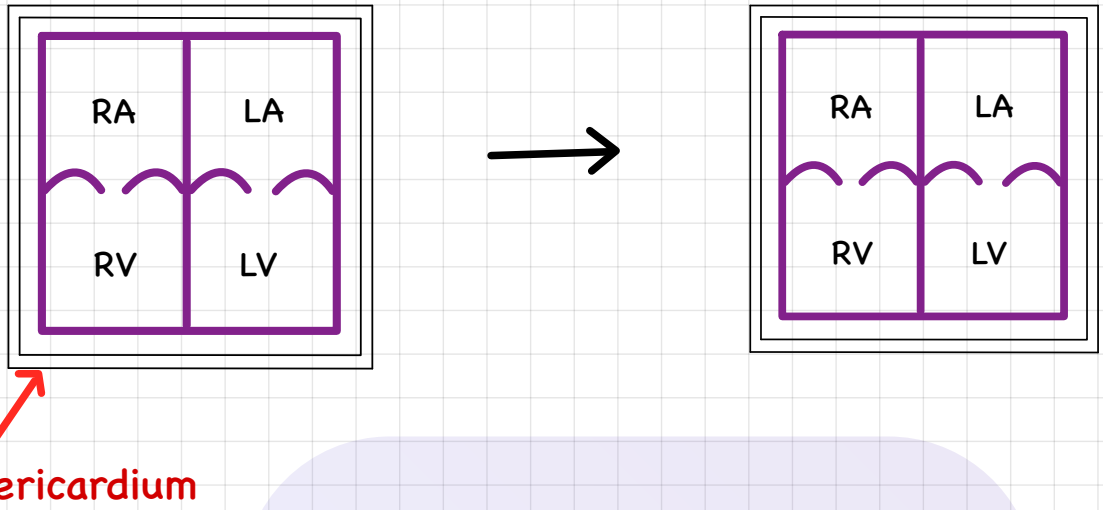
c) after 4 - 7 days of MI



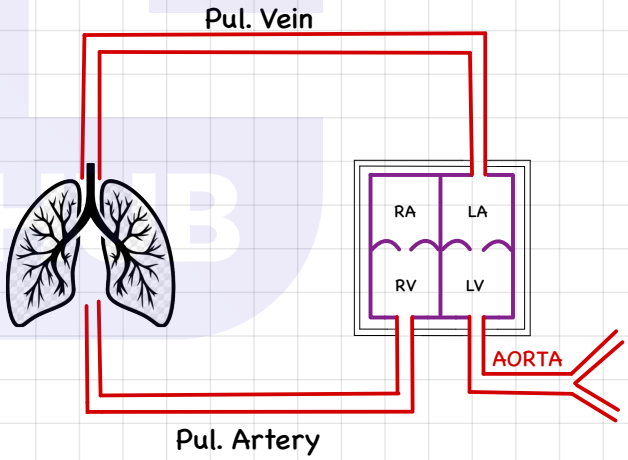
D) after 4 - 7 days of MI



d)



e)

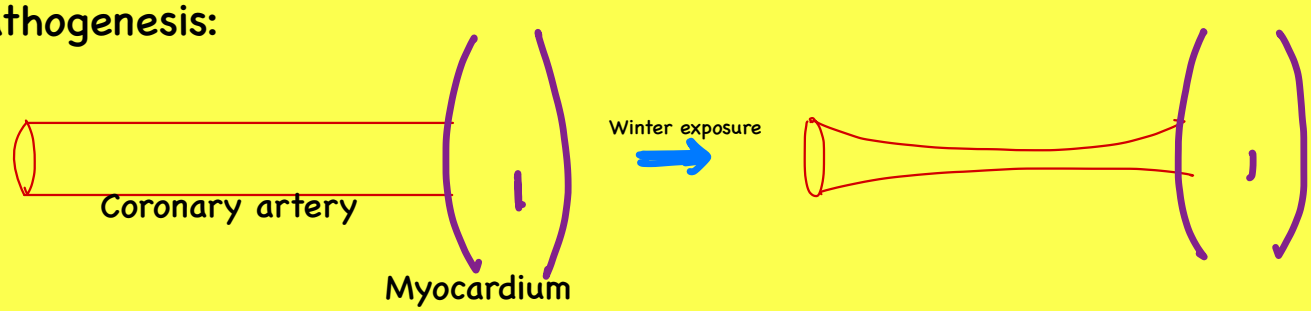


KILIP CLASSIFICATION

No sign of HF
B/L crep. in 50% lungs
Frank Pul. edema
Pul. edema + Shock

PRINZMETAL ANGINA

Pathogenesis:



C/F:

Associated with- …… phenomenon /…….intake.

ECG-

Rx-

Match the following

1) chest pain at rest + no st elevation + troponin ↑
2) chest pain at exertion only + no st elevation + troponin N
3) chest pain at rest + st elevation + troponin ↑
4) chest pain at rest + no st elevation + troponin (N)
5) recurrent chest pain on winter exposure + ST elevation
6) chest pain after 4 weeks of MI
7) shock on 5th day POST MI

A) stable angina
B) unstable angina
C) N-STE-MI
D) STEMI
E) free wall rupture
F) prinzmetal angina
G) dressler syn

1 …. 2….3……4……5…..6……7…..

SU\MMARY OF CORONARY ARTERY DISEASE

- ECG-Change — Transmural infarction - ST Elevation / ST depression
  — Subendocardial ischemia -ST Elevation / ST depression
- Localisation of MI — II/III/aVF-_____wall. (ant / inferior / lateral)
  — I/aVL/V5/V6-_____wall (ant / inferior / lateral)
  — V1-V4 -_____wall. (ant / inferior / lateral)
- MI— associated with bradycardia— _____wall MI (ant / inferior / lateral)
- Marker of reinfarction — _____ ____>____
- Best viability test - _____ (PET scan / thallium scan)
- TMT— is + if — ST depression ≥ _____mm for ____ms
- Stable angina — max. Mobility by- nitrate / B-blocker / aspirin ` statin
- Door to needle time - thrombolysis — < ___min (< 30/ <60/<90/ <120)
  - 1 PCI — < ___min (< 30/ <60/<90/ <120)
- PCI - after successfull thrombolysis - _____PCI (check / rescue/ delayed)
  - after unsuccessful thrombolysis - _____PCI (check / rescue/ delayed)
  - after USA-NSTEMI - _____PCI (check / rescue/ delayed)
- Variant angina — Rx -1)_____ 2)_____.

Pharma connection -

Heparin toxicity antidote - option - vit K / protamin sulphate

Warfarin toxicity antidote -option - vit K / protamin sulphate