

National University – Sudan
Faculty of physiotherapy
Academic year 2019-2020
3rd year – Batch 13- Semester 6

Physiotherapy cardio-respiratory Clinic Course

L 12 &13 : Ischemic Heart Diseases

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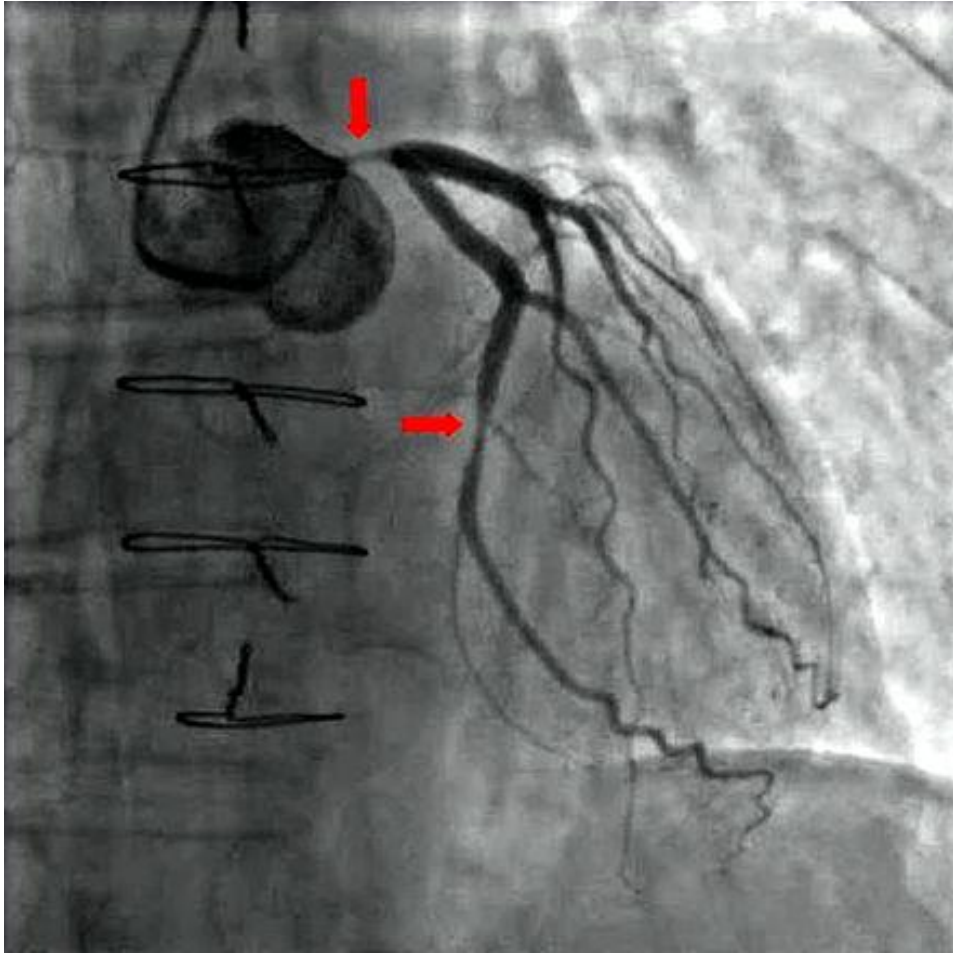
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Content

- ❖ Types
- ❖ Causes
- ❖ Risk factors
- ❖ Signs and symptoms
- ❖ Investigations
- ❖ Treatment

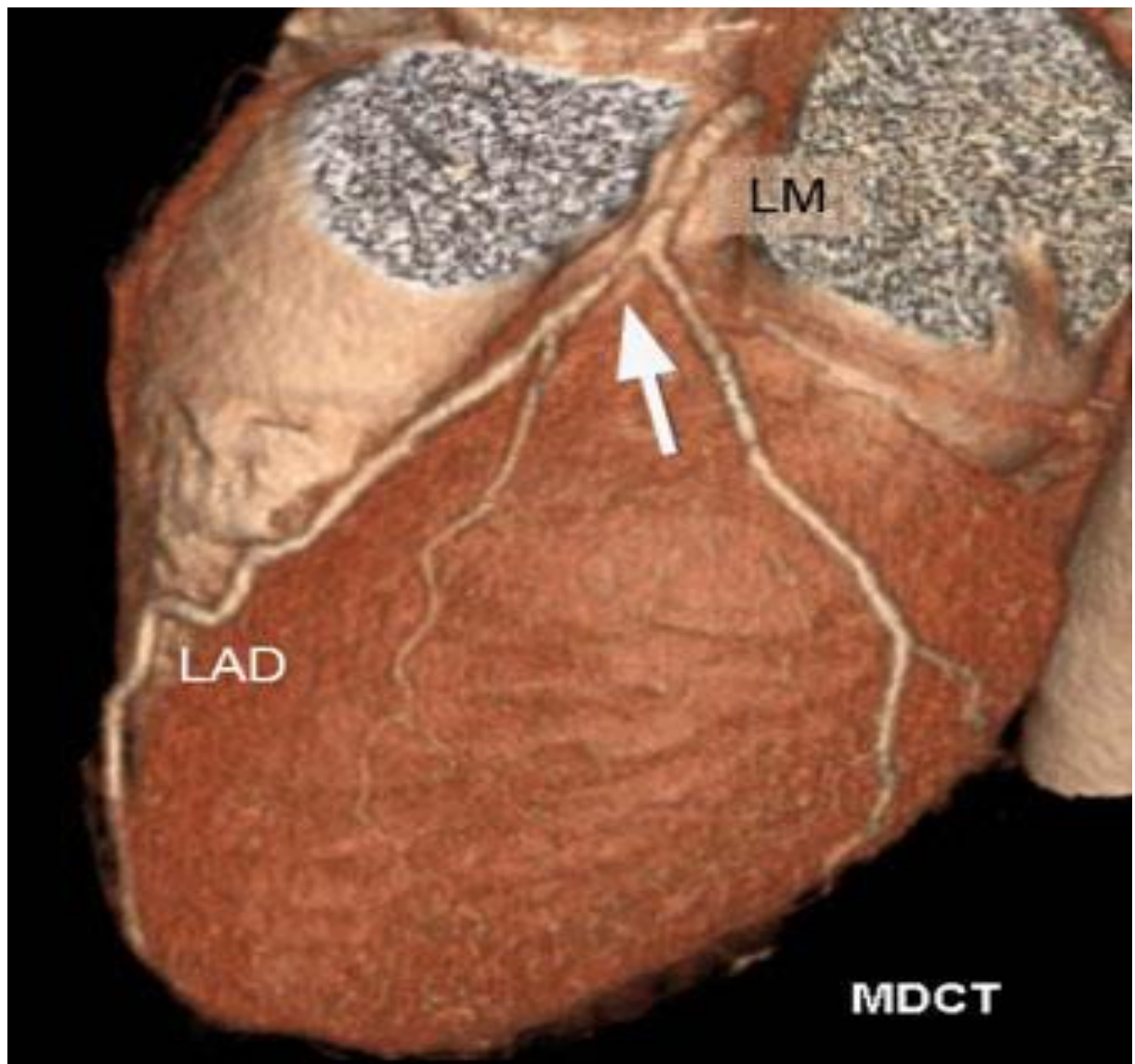
IHD

- Angina
- ACS



Coronary CTA



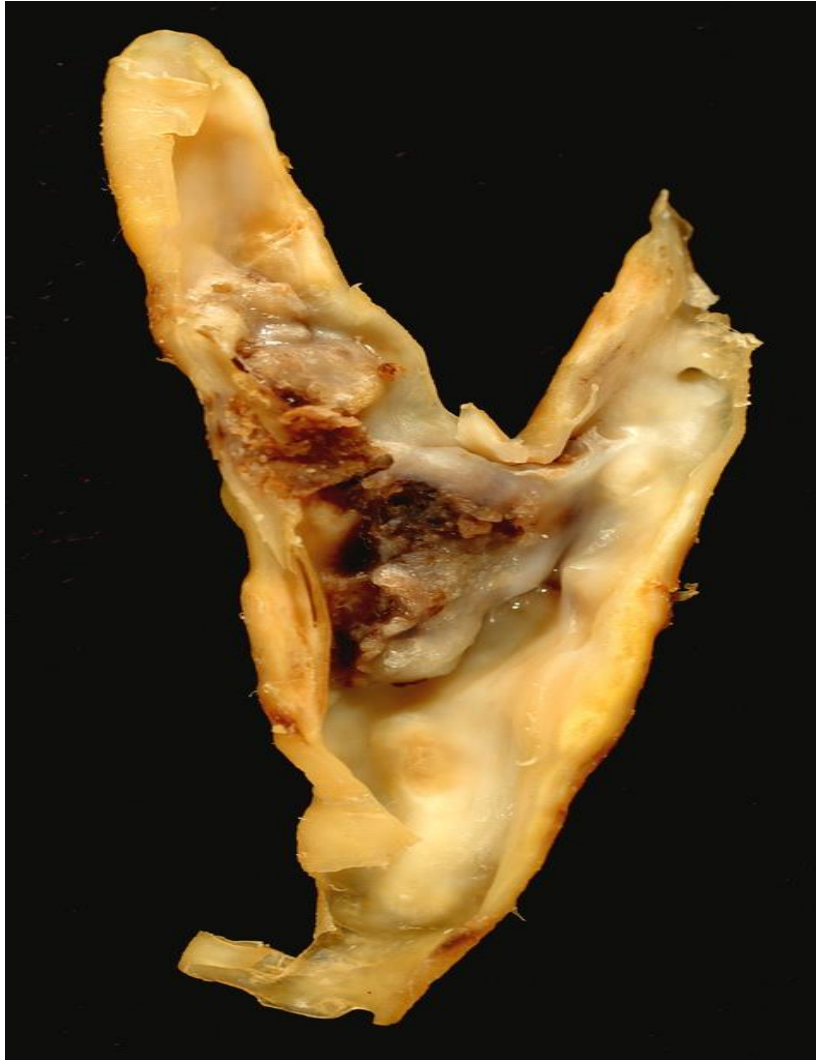


LM

LAD

MDCT

Atheroma



Angina

- Central chest pain on exertion relieved by rest, due to myocardial ischaemia
- May radiate to one arm or both, the neck and the jaw.
- May be associated with dyspnoea, faintness, and nausea

Causes

- Atheroma of the coronary arteries
- Rare

Anaemia, Aortic stenosis, Hypertrophic cardiomyopathy, arteritis, small vessel disease

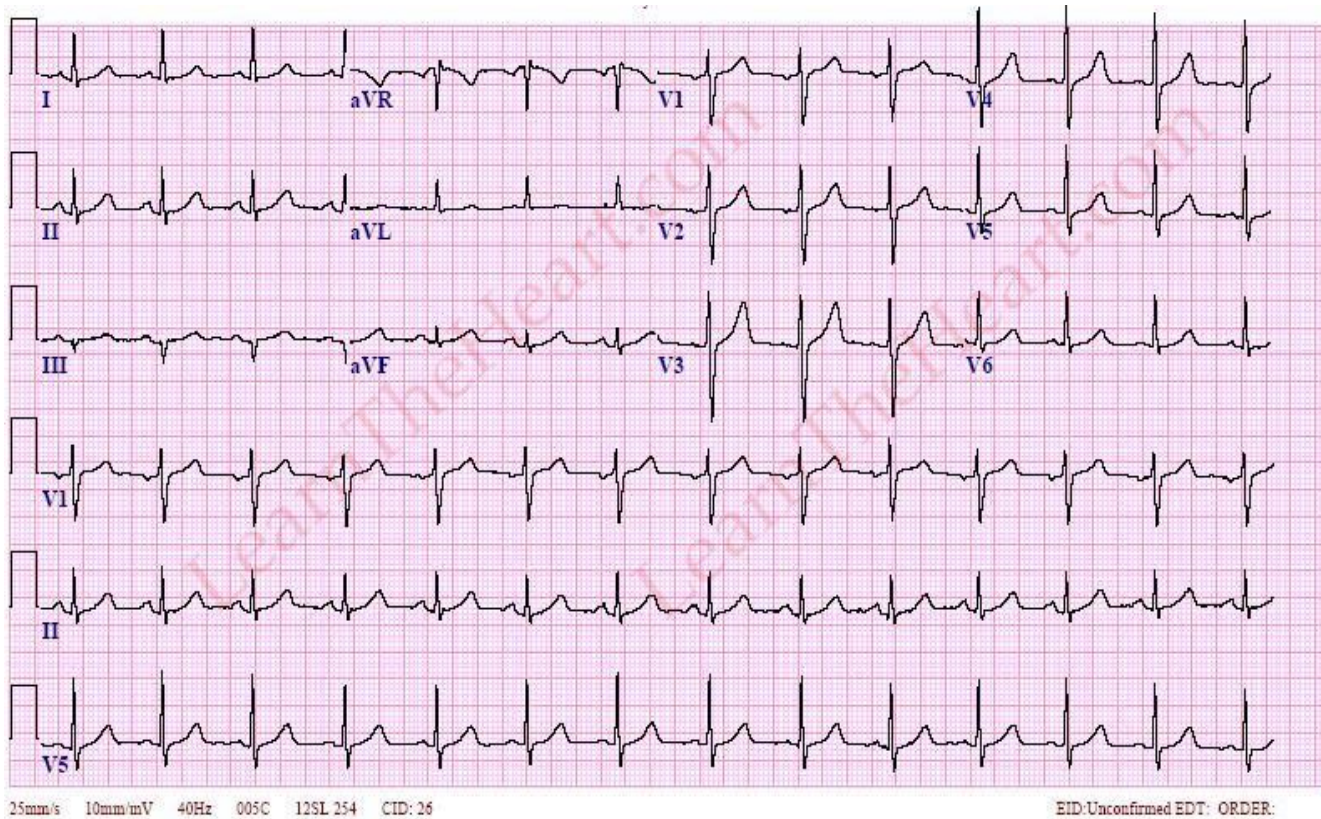
Types

- Stable angina
- Unstable angina
- Decubitus angina
- Variant angina

Tests

- ECG
- Exercise ECG
- Thallium scan
- Coronary angiography
- CBC, U&E, Glucose
- CXR

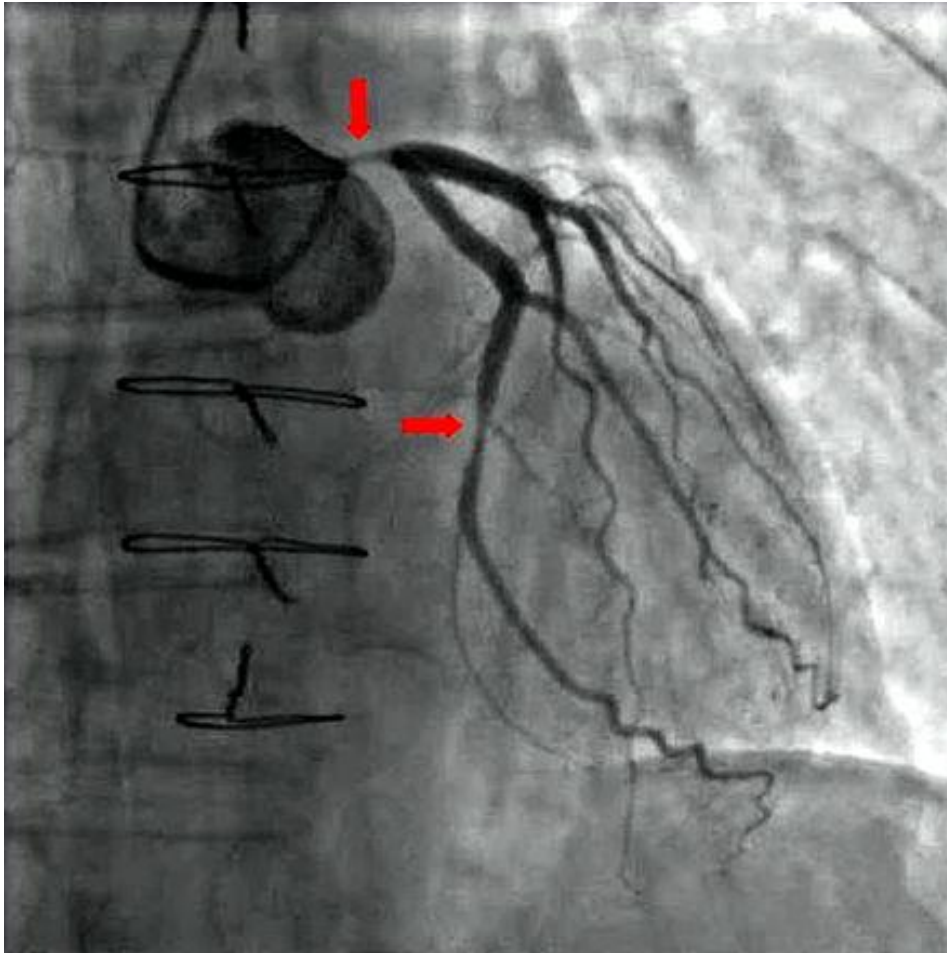
ECG



Exercise ECG



Coronary angiography



Management

- Modifiable risk factors(exercise, smoking, lipids, hypertension DM)
- Aspirin (reduces mortality by 34%)
- B-blockers (if no c/i)
- Nitrate
- Long acting Ca channel blockers (amlodipine, diltiazem)
- K channel activator (nicorandil)
- Coronary angiography, angioplasty or CABG

Indications to CABG

- Left main stem disease
- Triple vessel disease
- Angina unresponsive to drugs
- Unsuccessful angioplasty

Risks

- Non-modifiable:
- Age, male gender, family history of IHD

Modifiable :

Smoking

Hypertension

DM

Obesity

Sedentary life style

ACS

- Includes unstable angina and evolving myocardial infarction
- Two types:
- ACS with ST segment elevation, or new LBBB
- ACS without ST segment elevation

Presentation

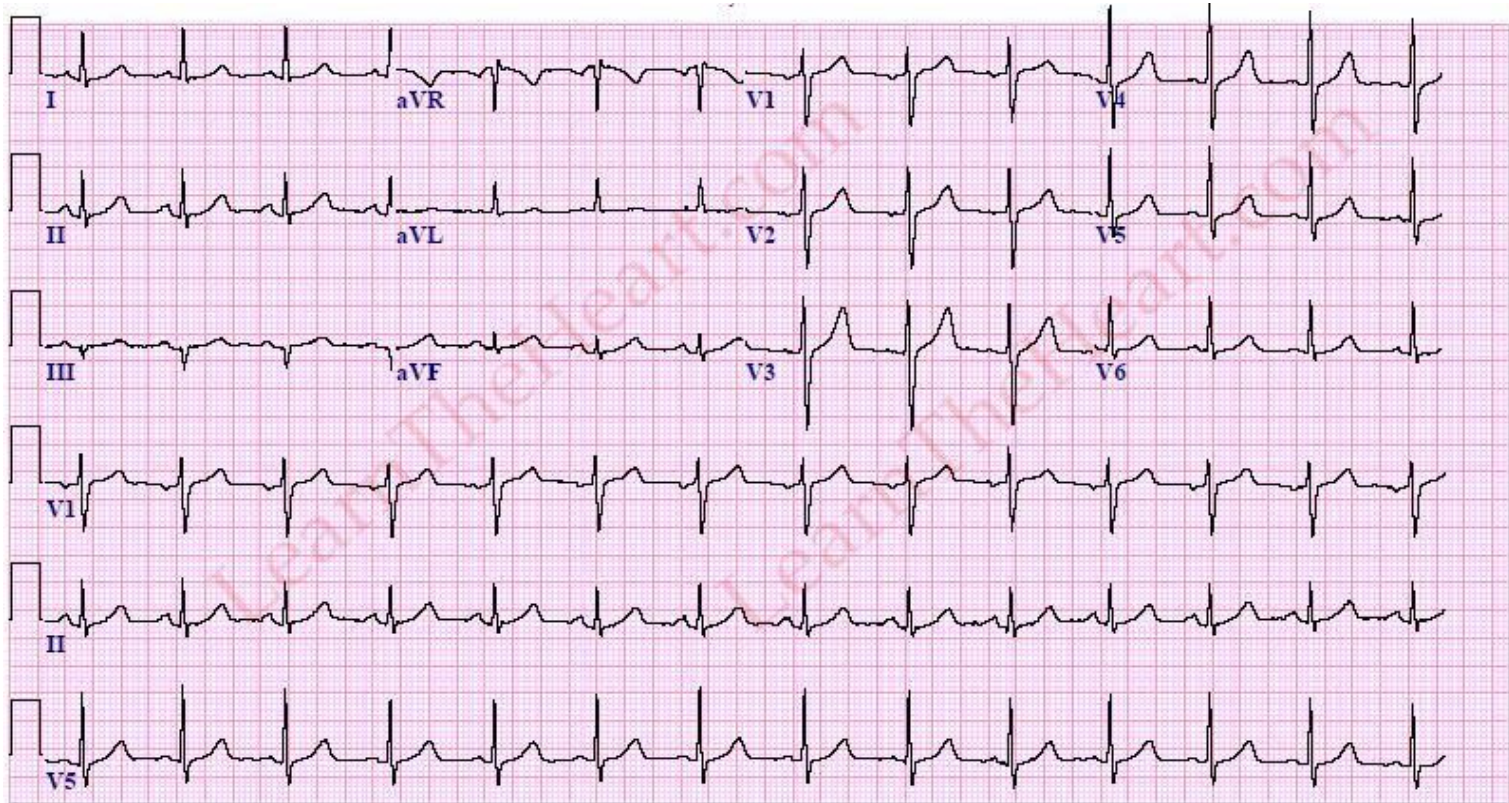
- Acute central chest pain lasting more than 20 minutes
- May be painless(silent infarct) presenting with syncope, pulmonary oedema, epigastric pain and vomiting, post op hypotension, distress, anxiety, sweatiness, there may be signs of heart failure and/or pansystolic murmur

DD

- Pericarditis
- Myocarditis
- Aortic dissection
- Angina
- Oesophageal reflux

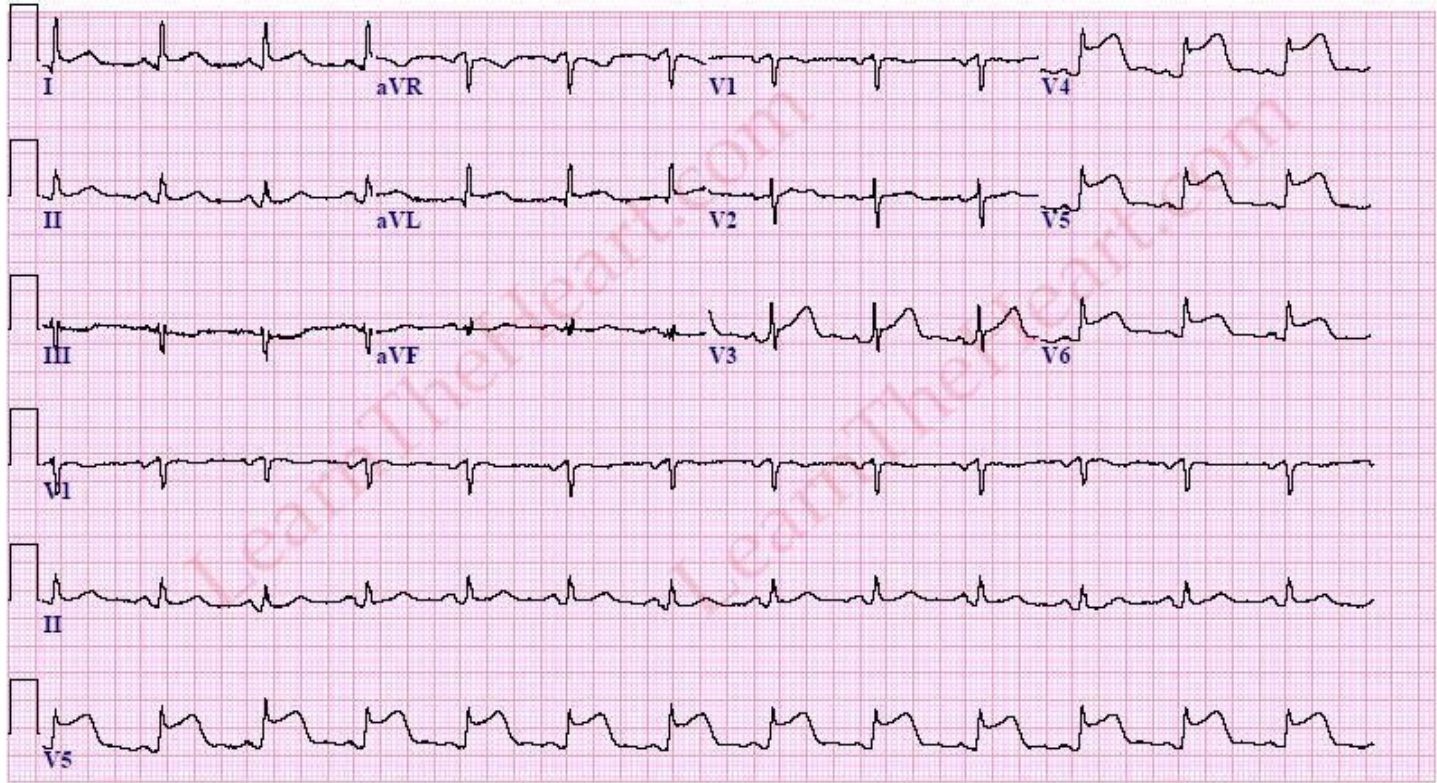
Tests

- ECG
- Cardiac enzymes (troponin (T and I) , CK-MB, AST,LDH)
- CBC, Lipids, Urea&Electrolytes (U&E), Glucose
- Chest X-Ray (CXR)



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Management

- Oxygen
- Morphine and metoclopramide iv
- Aspirin 300 mg oral

management

- **ST segment elevation:**
- Coronary angioplasty/or thrombolysis if no contraindication
- ACE-I
- B-blocker
- Clopidogrel 300 mg stat followed by 75 mg daily for 30 days

management

Non ST segment elevation:

- B- blocker(atenolol 5 mg iv)
- LMW heparin(clexane 1 mg/kg bd)for 2 to 8 days
- Nitrates

High risk patient (DM,recurrent chest pain, raised troponin,)

give GPIIb/IIIa antagonist infusion , urgent angiography / angioplasty,

Clopidogrel and Aspirin daily for 12 months

Low risk patient:

Can be discharged

Further management

- Bed rest for 48 hours
- Continuous ECG monitoring
- Prophylaxis against thromboembolism (consider warfarin for 3 months for extensive anterior MI)
- Aspirin 75 mg od
- Long term B blocker
- ACE-i
- Statin
- Exercise ECG after 3 weeks

Further management

- Address modifiable risks
- Discharge after a week
- Exercise ECG after 3 weeks of MI
- Avoid sex for one month
- return to work after 2 months
- Avoid air travel for 2 months
- Diet rich in oily fish, fruits, vegetables, low in saturated fat should be encouraged
- Regular exercise

Reviews

- Review after 5 weeks: check symptoms and signs related to ischaemic heart, treat as appropriate
- Review after 3 months: check fasting lipids