



Round : Emergency.....

Group no : A4.....

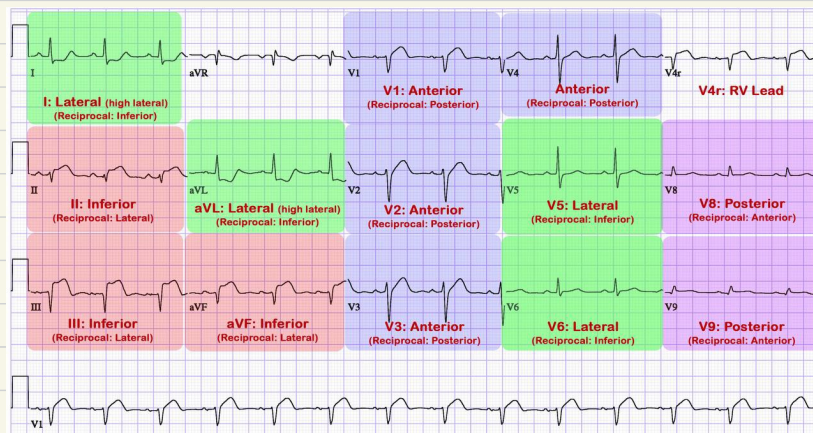
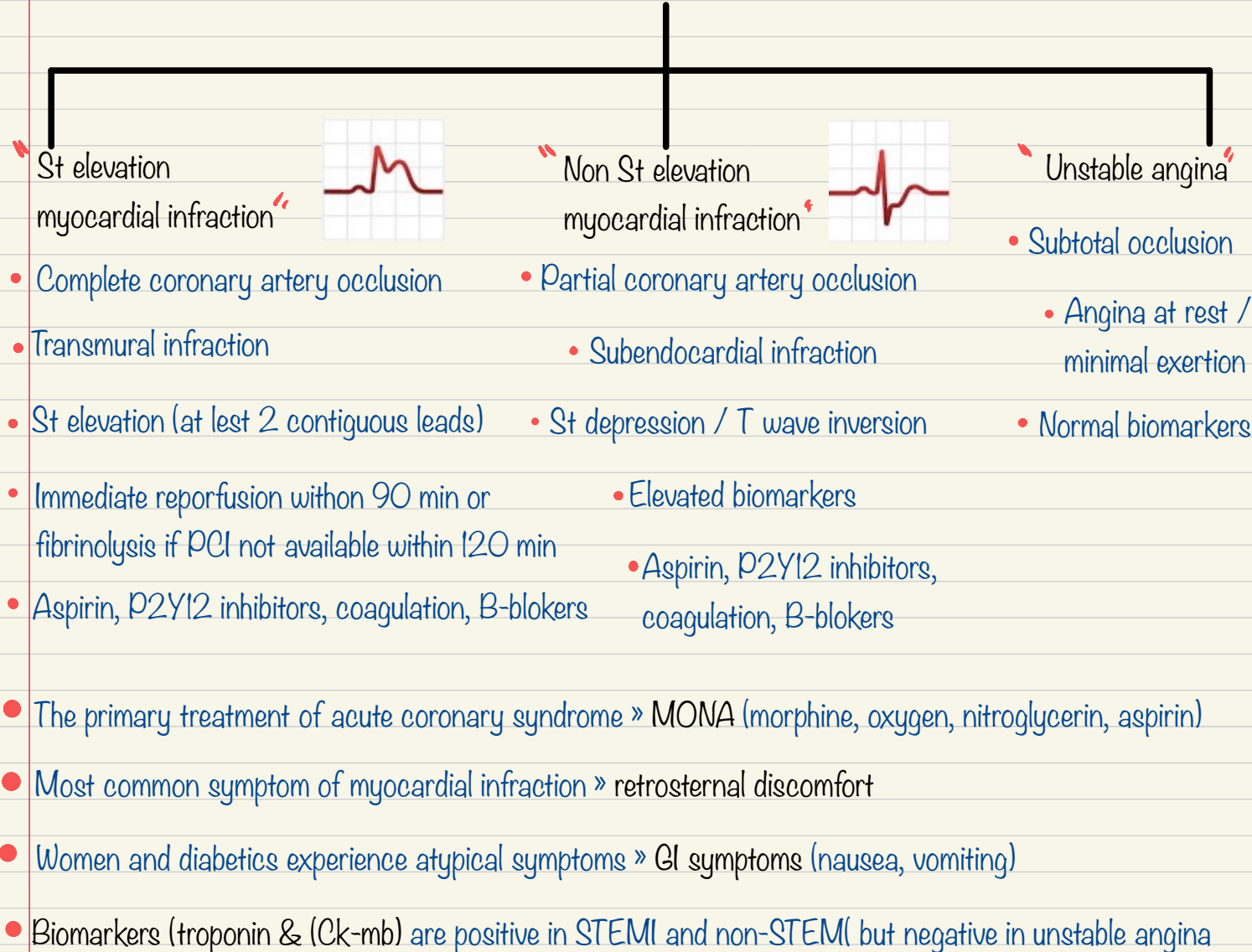
Done By : Batool ALzubaidi.....

chest pain شامل محاضرة ال ❄

pneumothorax كاملة ما عدا ال

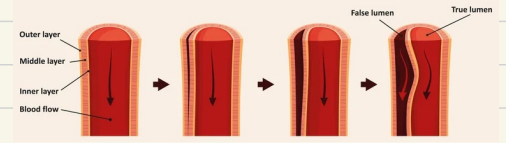
Acute coronary syndrome

- Risk factors » obesity, hyperlipidemia, DM, coronary heart disease, chronic kidney disease, smoking, family history, arterial blood disease



Aortic dissection

- A flap between tunica intima and media resulting in the tracking of blood between them creating false lumen



- Symptoms » sudden severe sharp/stabbing chest/back & stomach pain, SOB, loss of consciousness

Causes

Chronic hypertension

→ Stress, increased blood volume (pregnancy), blood vessel contraction (narrowing)

Weakening in the wall

→ Marfan's syndrome, decreased blood flow to vasa vasorum (atherosclerosis)

Aneurysm

- Risk factors » smoking, family history, male, poor diet, increased age (>65), low physical activity

Classifications

Stanford

- Which part of the aorta is involved
- Type A » ascending aorta (first 10 cm)
- Type B » descending aorta after the subclavian artery

DeBakey

- The location and extent of the dissection
- Type 1 » ascending, arch and descending aorta
- Type 2 » ascending aorta only
- Type 3A » descending aorta above diaphragm
- Type 3B » descending aorta beyond diaphragm

Imaging tests

Chest X-ray

- Widened mediastinum >8 cm
- Obstruction of the aortic knob

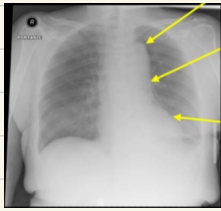
ECG

- Normal or ST-segment depression

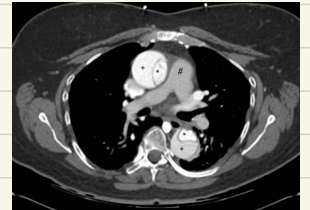
CT angiography

- Diagnostic modality of choice
- Initial flap, false lumen

- Ring sign
- Pleural effusion & cap
- Deviation of trachea & left main bronchus



- Dilatation of the aorta
- Aortic intramural hematoma



Management

Emergency treatment

- Immediate stabilization
- To reduce hemodynamics stress on aorta

Pharmacotherapy

- Analgesia » morphine
- Maintain HR & BP » short acting IV b-blocker .. b-blocker if contraindicated (asthma, bronchospasm) use Ca channel blocker

Surgical treatment

- Open surgery » midline sternotomy
- Endovascular » aortic stent graft, dissection flap fenestration, branch vessel stenting

Deep Vein Thrombosis

Aetiology (Virchow's triad)

- | | | |
|---|---|---|
| <p>“Endothelial damage”</p> <ul style="list-style-type: none"> • Injury of deep veins • Inflammation of veins | <p>“Stasis of blood flow”</p> <ul style="list-style-type: none"> • Compression of veins • Prolonged recumbancy in bed • Congestive heart failure | <p>“Hypercoagulability”</p> <ul style="list-style-type: none"> • Polycythemia, leukemia • Deficiency of antithrombin 2 Factor V Leiden |
|---|---|---|
- High risk group » stasis, major surgery, dehydration, pregnancy, elderly

• Diagnosis and classification »

Deep Vein Thrombosis (DVT)

Diagnosis: Wells Criteria

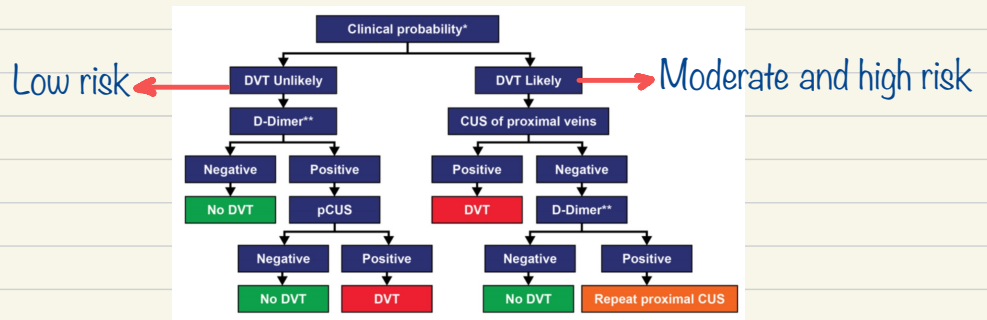
TABLE 25-3 Wells Score for Deep Vein Thrombosis (DVT)

Clinical Feature	Points*
Active cancer (treatment within 6 months, or palliation)	1
Paralysis, paresis, or immobilization of lower extremity	1
Bedridden for >3 days because of surgery (within 4 weeks)	1
Localized tenderness along distribution of deep veins	1
Entire leg swollen	1
Unilateral calf swelling of >3 cm (below tibial tuberosity)	1
Unilateral pitting edema (greater in symptomatic leg)	1
Collateral superficial veins (nonvaricose)	1
Alternative diagnosis as likely as or more likely than DVT	-2

Risk Score interpretation:

- ≥ 3 points: high risk (75%)
- 1 or 2 points: moderate risk (17%)
- <1 point: low risk (3%)

• Management »



• Treatment » anticoagulants (low molecular weight heparin, warfarin), thrombolytics

Pulmonary embolism

- Symptoms » dyspnea, chest pain, hemoptysis, excessive sweating, cough, syncope, confusion / seizure

- Diagnosis and classification »

Well's Criteria (Pretest Probability of PE)	
Clinical symptoms of DVT	3 points
Other diagnoses less likely	3 points
HR > 100 bpm	1.5 points
Immobilization or recent surgery	1.5 points
History of DVT / PE	1.5 points
Hemoptysis	1 point
Malignancy	1 point

Patients scoring <2.0 were considered low risk
Patients scoring 2.0 to 6.0 were considered moderate (intermediate) risk
Patients scoring >6.0 at high risk of pulmonary embolus

- Management » 1. D-dimer » negative if less than 500, positive if more than 500

But note that a positive result doesn't confirm PE because it could be physiologically high in some cases like elderly and pregnant women

2. Imaging » CT pulmonary angiography » gold standard for diagnosis, ventilation perfusion scan when CTPA is contraindicated like pregnancy