







History & Physical Examination of Cardiovascular system

## **CHEST PAIN**

Faisal 50 Year old comes to the clinic with chest pain. In next 10 minutes take a history.

## **History:**

Pain? (Use SOCRATES)

1- Chief Complaint: "Chest Pain"	
Questions	Indication
Duration:	
* When did it start?	
Site:	
* Where do you feel the pain <u>exactly</u> ? Ask the patient to point on the site by one finger.	<ul> <li>♦ Retrosternal →MI</li> <li>♦ Poor localize →Pulmonary Embolism.</li> <li>♦ Well localized →Pericarditis, pleuritic, Pneumothorax</li> <li>♦ Over skin →Musculoskeletal, costochondritis.</li> </ul>
Onset:	
* Is it <u>sudden</u> or <u>gradually</u> ?	
* Is it continuous or intermittent?  (if intermittent ask: How long does it last?)	
* Does it come in the Morning or Evening?  Output  Description:	

Character:	
* Can you tell me how the pain is like?	<ul> <li>◇ Pressure, Heaviness → MI</li> <li>◇ Sharp and stabbing → Pericarditis, pleuritic, Pulmonary Embolism (PE), Pneumothorax.</li> <li>◇ Tearing, ripping → Aortic dissection.</li> <li>◇ Burning → GERD.</li> </ul>
Radiation:	
* Is the pain radiate?  IF YES: Radiate to where?	<ul> <li>         \( \text{Left, right or both shoulders } \rightarrow \text{MI or Pericarditis.} \)         \( \text{Tip of jaw} \rightarrow \text{MI.} \)         \( \text{Back} \rightarrow \text{Aortic dissection.} \)     </li> </ul>
Aggregating & Reliving factor:	
<pre>What makes the pain worse?   * Exertion?   * After eating?   * Position?</pre>	<ul> <li>♦ Exertion → angina pectoris</li> <li>♦ Emotional Stress → Angina pectoris</li> <li>♦ Eating → GERD or GIT problem</li> <li>♦ Lying down → GERD, Pericarditis</li> <li>♦ Respiration or cough → pleuritis, pneumothorax, PE</li> </ul>
Does it go away quickly when you stop exercising?	♦ MI
What <u>relives</u> the pain?	<ul> <li>♦ Nitroglycerin (2-5min) → angina pectoris</li> <li>♦ Leaning forward → pericarditis</li> <li>♦ Antacid → GERD</li> <li>♦ Holding breath → pluritis</li> </ul>
Severity:	
How would you describe the severity of the pain on a scale from 1-10?	<ul><li>♦ Sever → MI</li><li>♦ Moderate → Angina pectoris.</li></ul>

# 2- Review of symptoms related to the system of interest.

#### Do you have:

- \* Nausea?
- \* Vomiting?
- \* Palpitation?
- \* Dizziness?
- Dyspnea, orthopnea, paroxysmal nocturnal
- \* Sweating?
- \* Syncope?
- \* Fatigue?

## **3- Risk Factors**

- \* Are you now or have you been <u>smoker</u>? How long since you stopped?
- \* Have you had any heart trouble before? What sort? What treatment did you have?
- \* Do you know what your cholesterol level is?
- \* Are you diabetic? How well controlled is your diabetes?
- \* Have you had high blood pressure and has it been treated?
- \* Have there been problems in your family with heart disease?
- \* Who was affected and how old were they?

## **4- Initial Investigations**

Chest X-Ray

**ECG** 

Angiography

## **Differential Diagnosis**

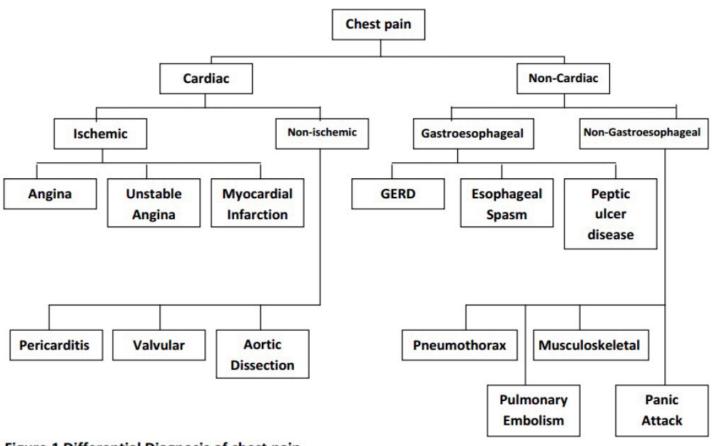


Figure.1 Differential Diagnosis of chest pain

#### **MANAGEMENT**

#### 1) MI & Angina →

- Analgesia
- Anti-platelet
- Anti-coagulant
- Anti-anginal therapy (sublingual nitrate )
- Reperfusion (in MI)
- Coronary Artery bypass graft surgery. (in Angina with damage in coronary artery)
- \*Complication of MI: Death, arrhythmic, mechanical, and inflammatory (early pericarditis and post-MI syndrome) sequelae

#### 2) Aortic Stenosis:

- Aortic valve replacement.

\*Complication: Angina

\*Causes: Bicuspid aortic valve (congenital) – Rheumatic fever.

### 3) Pneumothorax:

- Percutaneous needle aspiration of air.

## 4) GERD:

- Anti-acid

\*Causes: smoking









# Done By:

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