



Differentiating Cardiac vs  
Noncardiac Chest Pain in the  
Primary Care setting

Randy Minton MD FACC  
**PLUMBER**



Disclosures: None

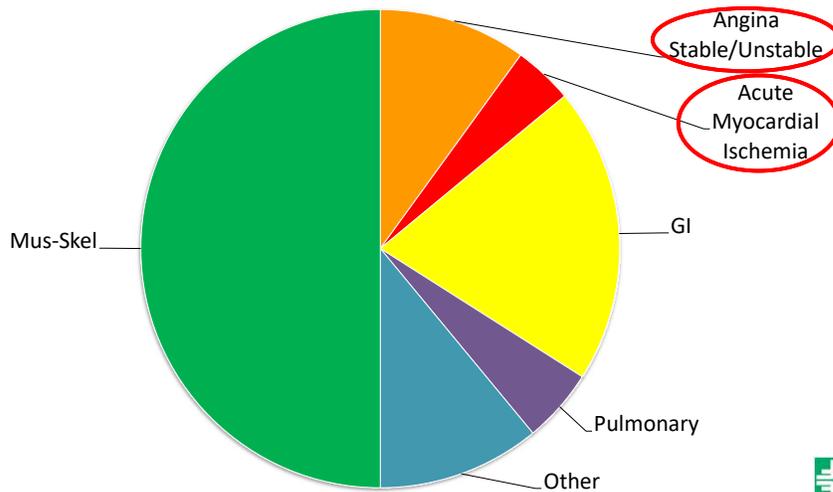


# Clinic Chest Pain Etiologies

- Musculoskeletal
- Gastrointestinal
- Pulmonary
- Other
- Cardiovascular



# Clinic Chest Pain Etiologies



## Clinic Chest Pain Musculoskeletal Etiology

- Cervical disc disease / Neuropathic pain
- Fibrositis/Fibromyalgia → Trigger points
- Herpes zoster (before rash)
- Sternoclavicular arthritis → Finger tip diagnoses
- Costochondritis → Finger tip diagnoses
- Rib fracture - History



## Clinic Chest Pain GI Etiology

- Esophageal
  - Esophagitis/Reflux
  - Spasm
  - Rupture
- Peptic ulcer disease
  - Nonperforating
  - Perforating
- Biliary
  - Cholangitis
  - Cholecystitis
  - Choledocholithiasis
  - Colic
- Pancreatitis

Proton pump inhibitor  
Antacid PRN

TAKE BEFORE EVENING MEAL  
\*\*NOT BEDTIME\*\*

If it hurts when you do that...



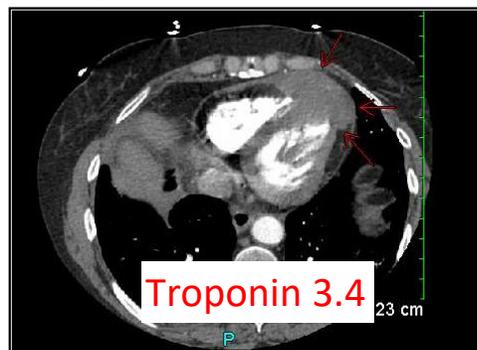
## Clinic Chest Pain Pulmonary Etiology

- Pleuritis - Pain with inspiration
- Pneumonia → CXR
- Pulmonary embolus → CTA
- Tension pneumothorax → CXR



## Clinic Chest Pain Other Etiologies

- Affective disorders (eg, depression)
- Anxiety / Panic / Hyperventilation
- Malignancy



## Clinic Chest Pain Other Etiologies

- Affective disorders (eg, depression)
- Anxiety / Panic / Hyperventilation
- Malignancy
- Somatoform disorders
- **Other**



## Clinic Chest Pain Cardiovascular Etiologies

- Nonischemic
  - Pericarditis
  - Myocarditis
  - Aortic dissection
  - Penetrating Aortic Ulcer (PAU)
- Ischemic
  - Stable
  - Unstable



# Clinic Chest Pain

## Acute Pericarditis

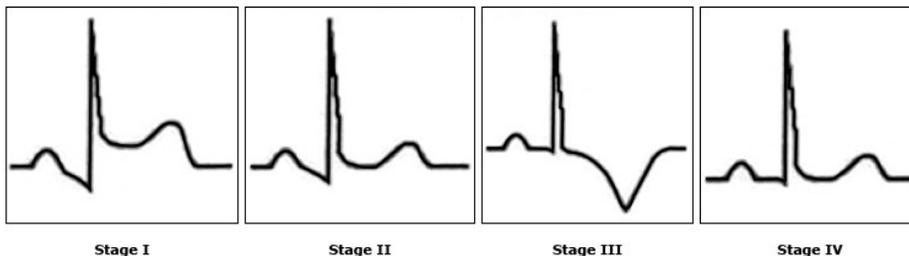
- Fever
- Pain decreases leaning forward
- Friction rub... **sometimes**
- Cardiac enzyme elevation
- ECG diffuse ST elevation



# Clinic Chest Pain

## Acute Pericarditis

- ECG ... **variable**



Stage I

Stage II

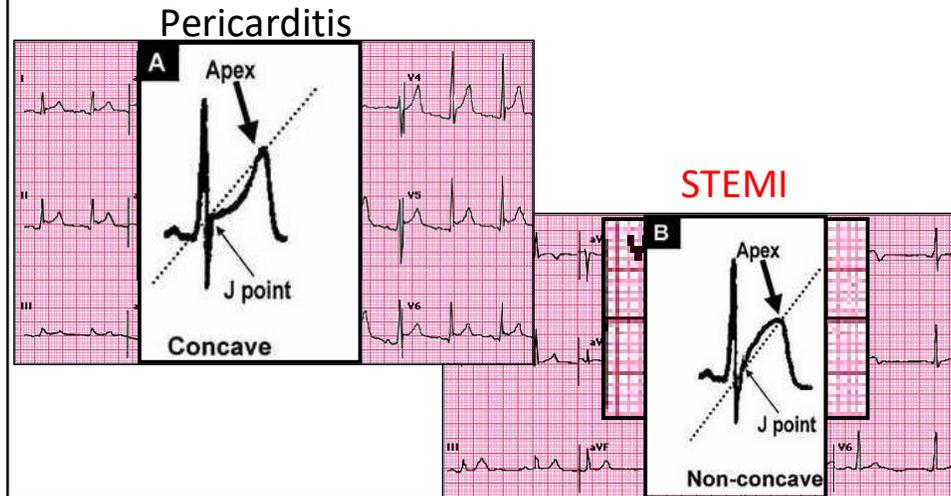
Stage III

Stage IV



# Clinic Chest Pain

## Acute Pericarditis



# Clinic Chest Pain

## Acute Pericarditis

### Outpatient vs Inpatient

- Fever > 100.4
- Subacute course
- Hemodynamic compromise
- Large pericardial effusion
- Anticoagulated
- Acute trauma
- Elevated troponin c/w myopericarditis

**ADMIT**



## Clinic Chest Pain

### Acute Pericarditis

#### Treatment options for idiopathic/viral pericarditis

- Ibuprofen 600-800 mg TID
- Aspirin 650-1000 mg TID
- Indomethacin 25-50 mg TID

Taper after resolution of symptoms  
over 2 week period



## Clinic Chest Pain

### Myocarditis

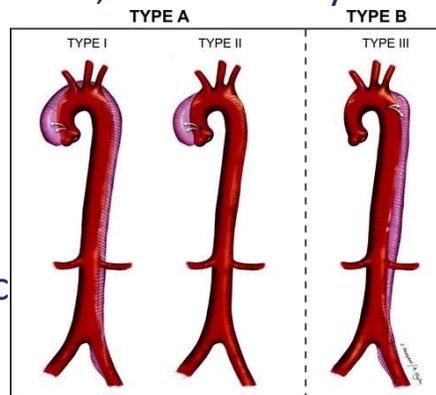
- *Variable* presentation
- Regional ST elevation even with ST depression and can be difficult to distinguish from a STEMI
- CP/Excessive fatigue
- Cardiac enzyme elevation
- CHF
- Cardiac arrest
- Definitive diagnosis: Endomyocardial biopsy



# Clinic Chest Pain

## Aortic dissection

- Marfan, family hx, AV disease, aortic aneurysm
- Acute onset
- Tearing/stabbing pain
- Interscapular
- Unequal arm BPs
- Murmur – New/diastolic
- ECG possible STEMI



# Clinic Chest Pain

## Penetrating Aortic Ulcer (PAU)



# Clinic Chest Pain Stable Angina

- DEFINITION: CP w/ activity or emotional stress
- QUALITY: Sharp/dull/pressure/squeezing  
**\*\*Not reproducible w/ palpation\*\***
- RADIATION: Neck/jaw/arm/back
- CONTEXT: Walking/stairs/exercise/other



# Clinic Chest Pain Risk Stratification

