

11/13/24 Morning Report with @CPSolvers

“One life, so many dreams” Case Presenter: Dan Mathew(@) Case Discussants: Sharmin (@Sharminzi) and Mark (@Mark_Heslin)

CC: 44 y/o female 2 days of chest pressure

HPI: She was in a music festival and she was walking in a heel and felt the chest pressure.

She is had left arm numbness and SOB. Pain resolves with rest but returned this AM when she woke up with notable diaphoresis & nausea.

4 years ago had COVID and have been having SOB. Never had similar chest pressure before.

Denies any fever, chills, pain worsening with deep inspiration or positional variation, back pain or difficulty swallowing.

PMH: Asthma
Fibrosis c/b
chronic anemia
Hemorrhoidectomy

Meds: None

Fam Hx: None

Soc Hx: Works as a CNA.

Health-Related Behaviors:
Intermittent alcohol and marihuana. Daily vaping.

Allergies: Denied

Vitals: T: afebrile (36.6°C) HR: 63 BP: 111/75 RR: 18 SpO2: 100% on RA

Exam:

Gen: well appearing, not in acute distress

HEENT: Normal

CV: RRR normal S1 and S2, no friction rub, no pleuritic pain

Pulm: Clear to auscultation

Abd: Soft, non-tender, non-distended

Neuro: AOx4, following all commands

Extremities/skin: No edema, no rashes, bruises

Notable Labs & Imaging:

Hematology: WBC: 6.5 Hgb: 7.4 Hkt 24.2 Plt: 451

Chemistry: Na: 137 K: 3.3 Cl:105 HCO3:26 BUN:4 Cr:0.64

Troponin: 750 → 652 D-dimer: nl

Urine drug screen: marihuana

Imaging: EKG: Sinus tachycardia. No evidence of ischemic disease

CXR: Clear lungs, no consolidation or pulmonary congestion

TTE: Normal size and systolic function EF: 55-60%. Normal size RV, mild tricuspid valve regurgitation, no pericardial effusion
→ Patient had the same chest pain, but no abnormalities on ECG and Echo.

Coronary CT Angiogram:

Anomalous origin of the right coronary w/ area of ischemia

Cardiac Catheterization:

No signs of vasospasm

Dx: Anomalous RCA leading to intermittent ischemia

Problem Representation: 44 y/o F presents with chest pain, a normal ECG and elevated troponin. Coronary CT Angiogram revealed anomalous origin of the R coronary w/ area of ischemia. Dx: Anomalous RCA leading to intermittent ischemia.

Teaching Points (Vini): Approach to Chest Pain

- **4+2+2:** Cardiac causes(4) - ACS, Takotsubo, Tamponade AD - Chest pain + abd. pain or other nonspecific pain. Pulmonary (2) - PE, Pneumothorax.
- Esophageal (2) - Rupture, Impaction
- Atypical - vasospasm (stress, cold, exposure, smoking, variant angina), coronary dissection vs Typical Angina.
- **Initial eval:** EKG, CXR, Troponins, D-dimer, basic labs, cons.CTA.
- **DDx:** Pericarditis - pleuritic chest pain, fever, tachy; Cardiac Tamponade (JVD, distant heart sounds); Genetic predisposition, FamHx, substance use - vasospasm, mimicking issues - severe GI bleeding, COVID - organizing pneumonia; eosinophilic myocarditis.
- **PEx:** nonspecific. in AD - hypertensive, check both arms. CXR:80% will have enlarged mediastinum.
- **Vaping associated pulmonary injury.**
- **MI: Type 1 - Plaque rupture; Type 2 - demand / supply mismatch, MINOCA; Type 3 - Sudden cardiac death, Type 4 - associated with PCI / post procedure restenosis / stent thrombosis, Type 5 - associated with CABG.**
- **Initial Tx:** Initiate antiplatelets, heparin, call cardiology, CathLab - angiogram.
- Macro vs Micro vascular disease
- **Echo vasospasm:** expected regional wall motion abnormalities, transient total coronary artery occlusion, abnormal coronary flow, increased myocardial velocity, no structural damage
- **Takotsubo** - LV dysfunction, need a cath to diagnose.
- **Cath revealed:** Abnormal origin of R coronary artery
- **Tx - Surgery:** RCA unroofing procedure.

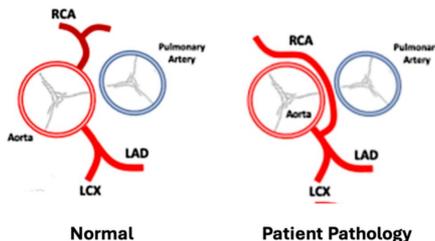


Figure 2: Diagram Outlining Coronary Anatomy (Adam, EL, et al. Anomalous Coronary Arteries: When to Follow-up, Risk Stratify, and Plan Intervention. Curr Cardiol Rep 23, 102 (2021).)