# 7/7/23 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: Maryana (@Marymendonca16) **Case Discussants**: Rabih (@Rabihmgeha) and Reza (@DxRxEdu)*

**CC**: 59 year old male patient with progressive chest pain for the past 10 days.

**HPI**: Pain started 10 days ago, describes it as progressive burning pain which worsens with exertion. Denies any nausea or vomiting, no headache, pain is not related to eating, no fever, no dyspnea.

**Course:** Patient was lost to follow-up after the first sx. During this presentation, passed away from complications of COVID infection.

**PMH**: Hypertension, Aortic valve replacement, aortic dissection correction (13 years ago)

**Meds**: Captopril, Propranolol amlodipine

**Fam Hx**: None

**Soc Hx**: No tobacco, or alcohol

**Health-Related Behaviors**:

**Allergies**: None

**Vitals: T:** afebrile **HR:** 84 **BP:** 114/73 **RR:** 16 **SpO2** 98%

**Exam:**

**Gen:** No abnormalities

**HEENT:**

**CV:** No murmurs, radial pulse is decreased on the left

**Pulm:** Normal, progressive bulge in right hemithorax (pulsatile bulge)

**Abd:** Normal

**Neuro:**

**Extremities/skin:** No edema

**Notable Labs & Imaging**:

**Hematology**:

WBC: 7000 (normal) Hgb: 12 Plt: 300,000

**Chemistry**:

Na: 140 K: 4.5 Cl: CO2: BUN: 30 Cr: 0.9 glucose: Ca: Phos: Mag:

AST: ALT: Alk-P: T. Bili: Albumin:

Troponin: normal

**Imaging**:

EKG: Normal, regular rhythm, no ischemic signs

CXR: Consolidation in right middle lobe with mediastinal enlargement

CT chest: Aorto-cutaneous fistula formation

**Management**: Pt was hospitalized in the ICU, with pain and hypertension controlled by the team. Pt was found to have COVID symptoms, and later passed away of kidney failure.

**Final Dx: Aorto-cutaneous Fistula**

**Problem Representation**: 59 y/o male presented with a history of progressive subacute chest pain that started 10 days prior, with a past medical history of Hypertension, AV replacement, and Aortic dissection correction. Further examination revealed a pulsatile bulge in right hemithorax suggesting a diagnosis of Aorto-cutaneous fistula.

**Teaching Points (@Noah_Nakajima)**:

**Progressive subacute chest pain**

- Must be evaluated with CXR, troponin, EKG. Although duration reassures us of severe causes, it does not rule out emergencies.

**Worsened by exertion**

- Help us narrow the differential diagnosis to the cardiopulmonary system (or the blood).

**Late presentation**

- Slow tempo (classic vs indolent presentation) vs barriers to care.
- In this case, change in characteristic (intermittent -> constant).

**Previous aortic pathology**

- Extends the differential diagnosis to complications (eg. paravalvular leak) and to hidden syndromes, especially given relatively young age (inflammation, genetics, idiopathic).
- It cannot be ignored! Those patients need imaging.

**"Normal" vital signs**

- *Mediastinal disease processes affect the vital signs late in the presentation. Be aware!*

**Pivot point - pulsatile bulge**

- Vascular issue until proven otherwise. Complication of previous sx? Progression of underlying disease?
- Warranted to invest more cognitive effort in large vessels pathologies now!

**Complications of aortic pathologies**

- Intrinsic vs extrinsic (compression & fistulization).

**Diagnostic uncertainty**

- Is this only bad luck (possible) or something else?
- Diagnostic checklists are extremely helpful here.