10/15/20 Morning Report with @CPSolvers

***Case Presenter**: Rafa Medina Dos Santos(@Rafameed) **Case Discussants**: Christine Tran (@ChristineTranV1) & Alec Rezigh (@ABRezMed)*

CC: Loss of consciousness
HPI: 20W with two unexplained episodes of loss of consciousness (1st 2 months ago). No triggers, no prodromal symptoms.

Theses episodes occur suddenly and she does not remember how they happened. She feels fatigued afterwards and notes heart palpitations.

She has chronic dyspnea on exertion since childhood that limited her ability to play with other children.

3 months before hospitalization, she developed precordial chest pain that radiates to the epigastric region and was associated with dry cough, vomiting, and back pain. She denies fevers and her ROS is otherwise negative.

PMH: Multiple prior admissions for evaluation of her dyspnea.

Meds:

Fam Hx:

Soc Hx:
Born and raised in brazil. No recent travel history

Health-Related Behaviors:
No substance use or alcohol use.

Allergies:

Vitals: **T**: 37 **HR**: 110 **BP**: 100/60 **RR**: 28 **SpO_2**: 95% on room air
Exam:
Gen: Fatigued and in respiratory distress
HEENT: Normal
CV: S2 with a loud pulmonic component. Presence of S3. High-pitched, blowing, holosystolic murmur best heard at the apex. Holosystolic murmur also at LLSB.
Pulm: Clear
Abd: Normal
Neuro: Normal.
Extremities/Skin: No rash, edema. Irregularly irregular radial pulse.

Notable Labs & Imaging:
Hematology:
WBC: Hgb: Plt: Normal

Chemistry:
Na: K: Cl: CO2: BUN: Cr: glucose: Ca: Phos: Mag:
AST: ALT: Alk-P: T. Bili: Albumin: All normal

Imaging:
EKG: No p-waves. Irregularly irregular QRS complexes. Q waves in V4-V6 suggestive of diffuse necrosis or fibrosis. Diffuse repolarization changes suggestive of diffuse myocardial involvement and Left ventricular overload.
CXR: Cardiomegaly with left heart enlargement
TTE: Ejection Fraction of 25%; eccentric cardiac hypertrophy, increased LV mass, PASP of 56mm Hg. Left atrial enlargement. Moderate mitral and tricuspid regurgitation.

Chagas serology: Positive

Problem Representation: 20 year old woman with a family history of cardiac pathology presented with recurrent episodes of transient loss of consciousness and was found to have LV failure, pulmonary HTN c/b TV regurg, and eccentric LV enlargement c/b MV regurg with serologies confirming congenital Chagas Disease

Teaching Points (Kiara):

- **Brain/Heart?**
- **LOC:** Seizure, syncope, sugar, stroke
- **Syncope:** CPS schema
  - **< Cardiac output:** Cardiogenic (obstruction), hypovolemic(hemorrhage/ no hemorrhage), arrhythmia, shunting
  - **< Resistance:** Sympathetic, vasovagal
- **Syncope + palpitation**= Cardiogenic (arrhythmia-channelopathy, valvular, infectious like chagas)
- **Transient LOC:**
  - **Arrhythmia**, living edge disease (small pathology which exacerbates when running, stand up)
  - **Structural** (congenital: without big symptoms -> small VSD, ASD)/ Rhythm
- AF develops over time unless 1ry pathology
- Hypertrophy -> obstructive heart disease: < CO
- **Pulmonary HTN:** Overload, primary etiology -> Right cath
- **HF + young:** Myocarditis, endocarditis, chagas dilated cardiomyopathy, congenital
- **Family Hx: Congenital**, shared **infections** (Chagas: mom -> fetus, blood donors, lyme, parasitic eosinophilic myocarditis, **toxicity** (Carbon monoxide toxicity)