



Peripartum Cardiomyopathy Presenting as Bradycardia

Codsi E, Blauwet LA, Rose CH, Hayes SN, Tweet MS, Best PJM

Cardiac Problems in Pregnancy
February 27th, 2016

Presentation at Local ED

- 28 year-old G2P2, postpartum day 5
- CC: chest heaviness and slow heartbeat
- PMH: none
- OB Hx: vacuum-assisted vaginal delivery at term
- Vital signs: **HR 30-40**
 - Atropine, then transferred

Presentation at our Center

- **Vital signs**

HR ~40-60 BPM BP 87/47 mmHg SpO₂ 98%

Exam: bradycardia, soft systolic murmur LSB

→ Dopamine infusion

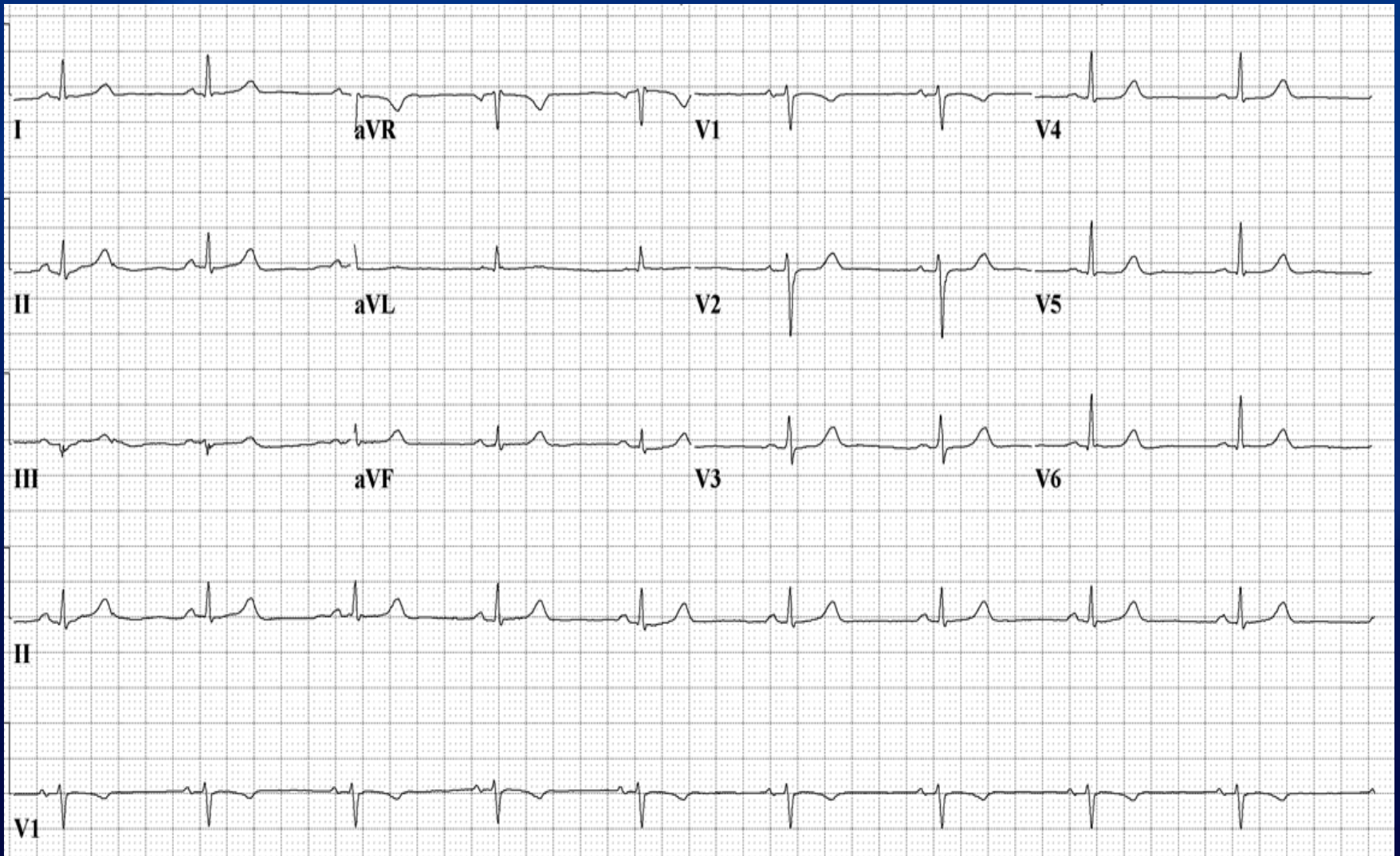
- **DDx:**

SCAD, PPCM, myopericarditis, Takotsubo
cardiomyopathy

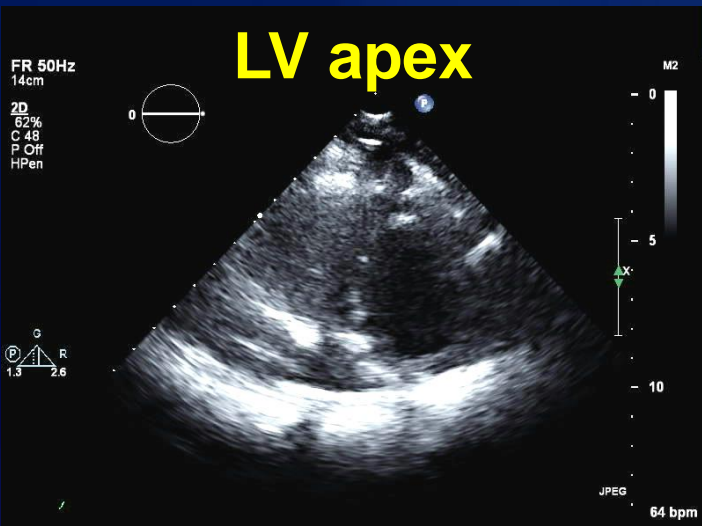
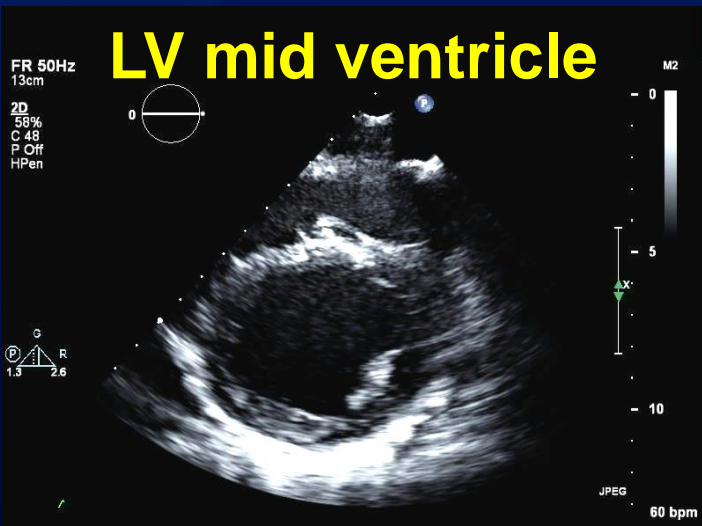
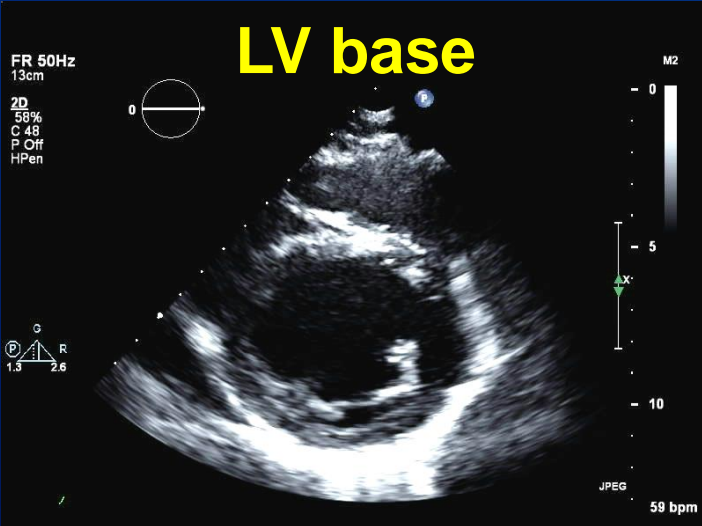
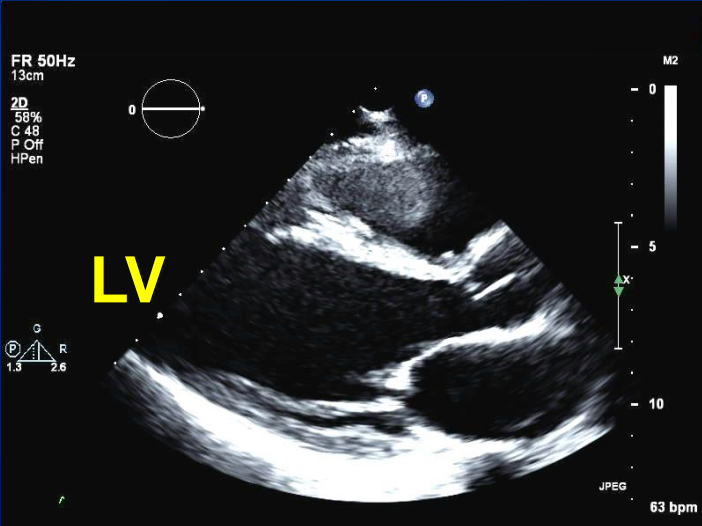
Initial workup

- Electrolytes normal, Hgb 12 g/dL
- Preeclampsia workup: negative
- CRP 8.8 (nl <8.0 mg/L)
- Serial Troponin T: 0.01→0.30→0.22 (nl <0.01 ng/mL)
- NT-proBNP: 324 (nl <140 pg/mL)
- CTA chest and CT head: negative

Electrocardiogram



Echocardiogram



Hospital Day 1

- **Right heart catheterization**
 - PA pressures moderately ↑ (mean PA 32 mmHg)
 - Left heart filling pressures severely ↑ (PCWP 22 mmHg, LVEDP 21 mmHg)
 - Cardiac output & cardiac index nl (CO 5.4 L/min, CI 2.95 L/min/m²)
- **Coronary angiography**
 - 20% lesion in mid LAD
 - No evidence of SCAD
- **Dx: likely peripartum cardiomyopathy**

Hospital Day 2

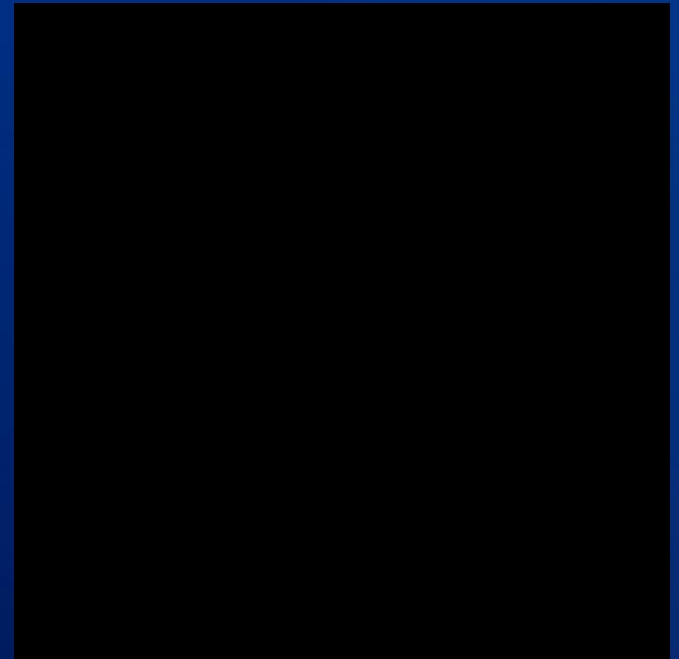
- Hemodynamically stable
- Mild dyspnea
- Enalapril initiated

Hospital Day 3

- Cardiac MRI: LVEF 50%; mild basal hypokinesis

Hospital Day 4

- Discharged



Peripartum Cardiomyopathy

- Heart failure in the last month of pregnancy or within 5 months postpartum
 - Absence of another identifiable cause of HF
 - LVEF dysfunction
- 1 in 3,000 to 4,000 live births in the USA
- Symptoms: dyspnea, cough, orthopnea, edema, hemoptysis
- Signs: tachycardia, elevated JVP, S3, pulmonary crackles, mitral regurgitation murmur
 - Bradycardia uncommon presenting sign

Abboud et al. *Int J Cardiol.* 2007 Jun 12;118(3):295-303. Epub 2007 Jan 17.

Pearson, GD. *JAMA.* 2000 Mar 1;283(9):1183-8

Wake K et al. *Masui.* 2003 Oct;52(10):1089-91.



Questions & Discussion