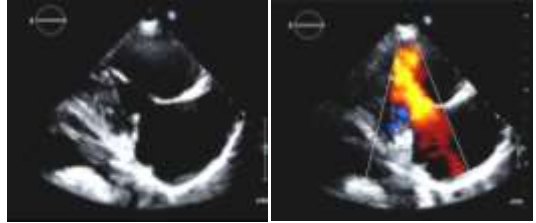




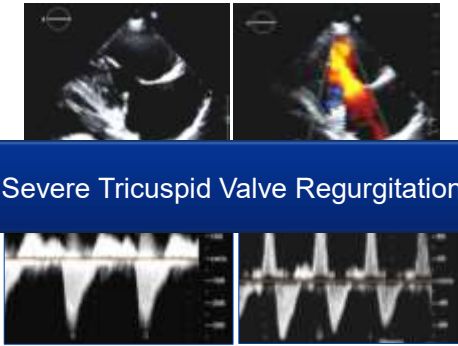
## Systemic Heart Disease Case

Heidi M. Connolly

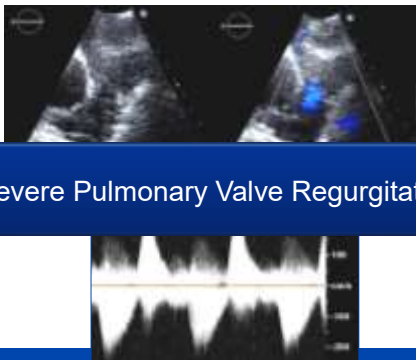
## 60-Year-Old Male Murmur, Fatigue and Edema



## Severe Tricuspid Valve Regurgitation



## Severe Pulmonary Valve Regurgitation

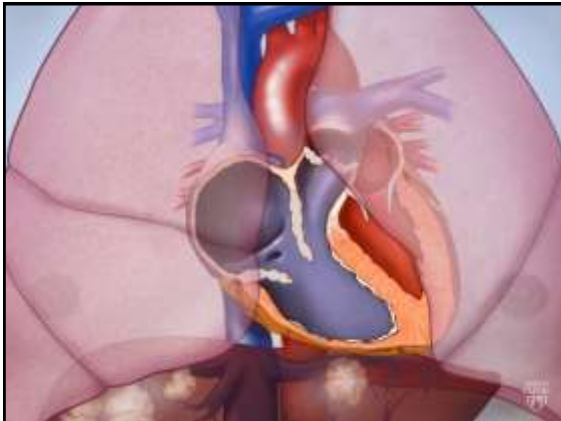
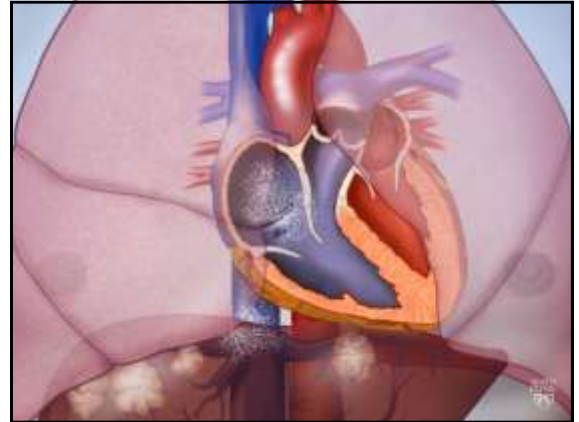


## Ancillary Features



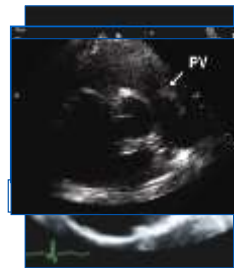
## What is the diagnosis?

1. Eosinophilic cardiomyopathy
2. Hemochromatosis
3. Carcinoid heart disease
4. Amyloid heart disease



## Carcinoid Heart Disease

### Echo Findings

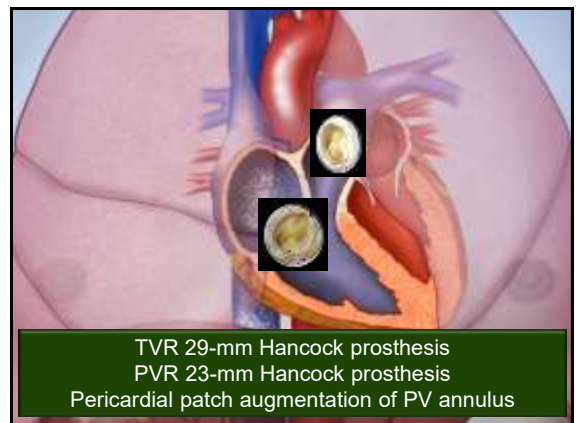


- Thickened, retracted TV
- Regurgitation > stenosis
- PV difficult to visualize
- RV dysfunction
- Left-sided valves – 10%
- Myocardial mets – 5%
- Pericardial effusion

## Valve Operation for Carcinoid HD

### 195 Patients – JACC 2015

- All had TVR (159 biopro, 36 mech)  
157 (80%) had PV operation
- Left-sided valve disease  
11% MV procedure, 9% AV procedure
- 23% PFO or ASD closure  
45% PFO/ASD with left-sided VHD



TVR 29-mm Hancock prosthesis  
PVR 23-mm Hancock prosthesis  
Pericardial patch augmentation of PV annulus

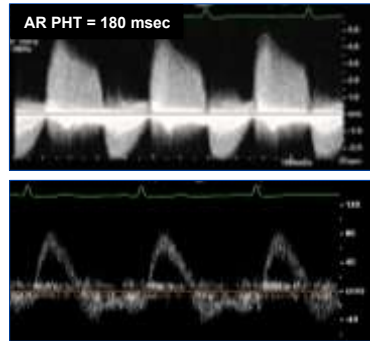
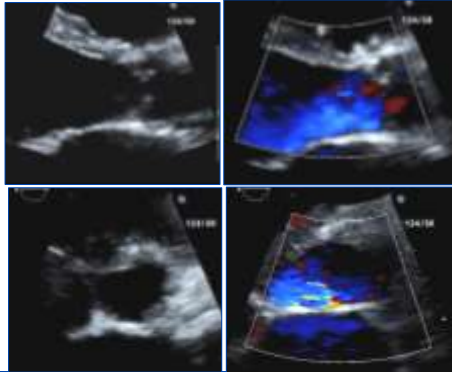
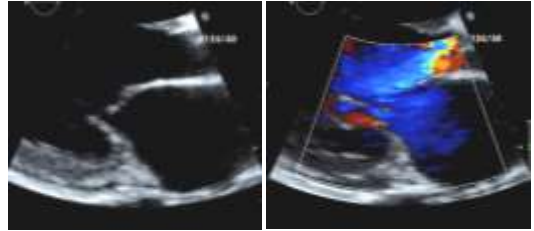
57-Year-Old Female  
Known Metastatic Carcinoid Disease



EDD = 61 mm



57-Year-Old Female  
Known Metastatic Carcinoid Disease

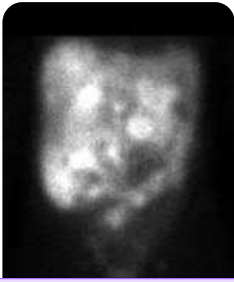


What next?



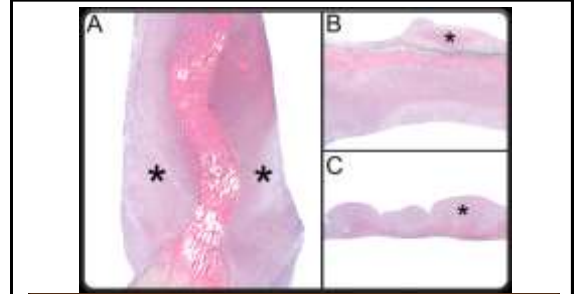
Contrast Echo





Indium-111 pentetreotide scan (Octreoscan)

1. Numerous hepatic metastases
2. Extensive radiotracer avid omental metastases
3. Central mesenteric mass - adjacent loop of small bowel
4. Activity in several locations of the thoracic spine



Fibroproliferative endocardial carcinoid plaques (\*) adherent to tendinous cords and papillary muscle tip as well as leaflets and cusps

### Take Home Points – Carcinoid

- TV disease characteristic
- PV involved in ~80%
- MV and AV affected in >10%
  - Look for PFO
- Look for hepatic metastases