

Monday

# Systolic function: Case

**Raymond F. Stainback, MD, FASE**  
President, American Society of Echocardiography  
Chief, Non-invasive Cardiology  
Texas Heart Institute at  
Baylor St. Luke's Medical Center  
Assoc. Prof., Baylor College of Medicine  
Houston, TX



 TEXAS HEART<sup>®</sup> INSTITUTE



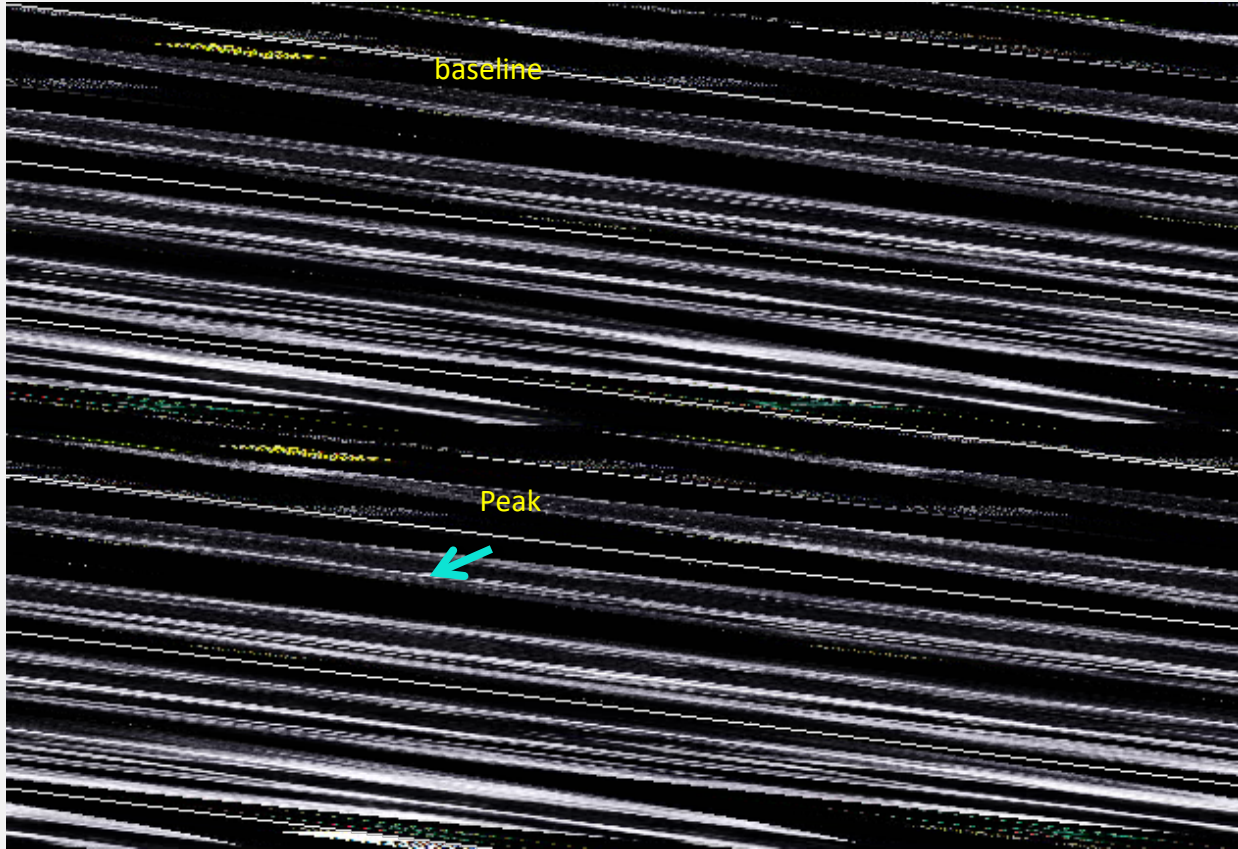
January 17, 2022

Disclosures: *None*



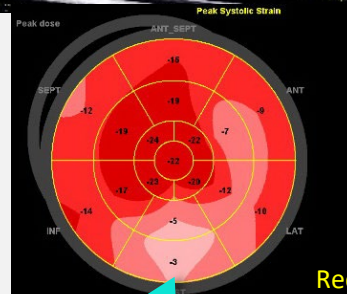
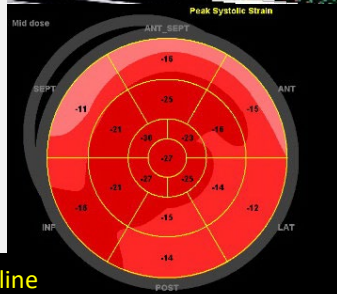
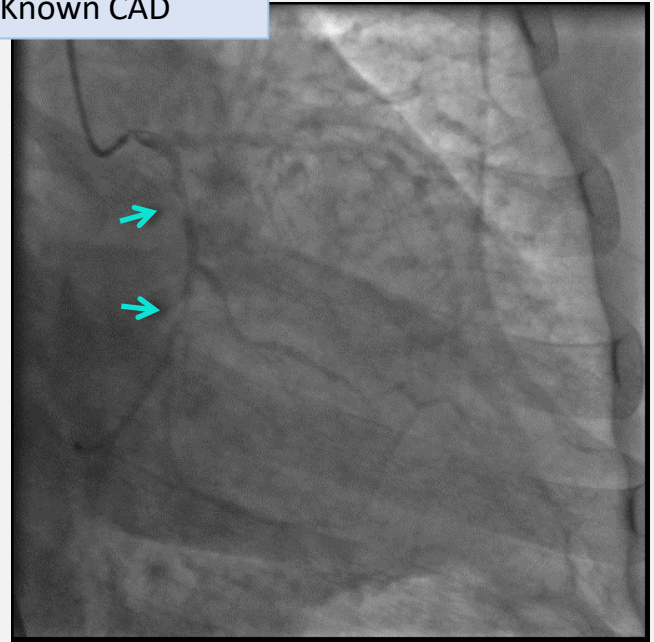
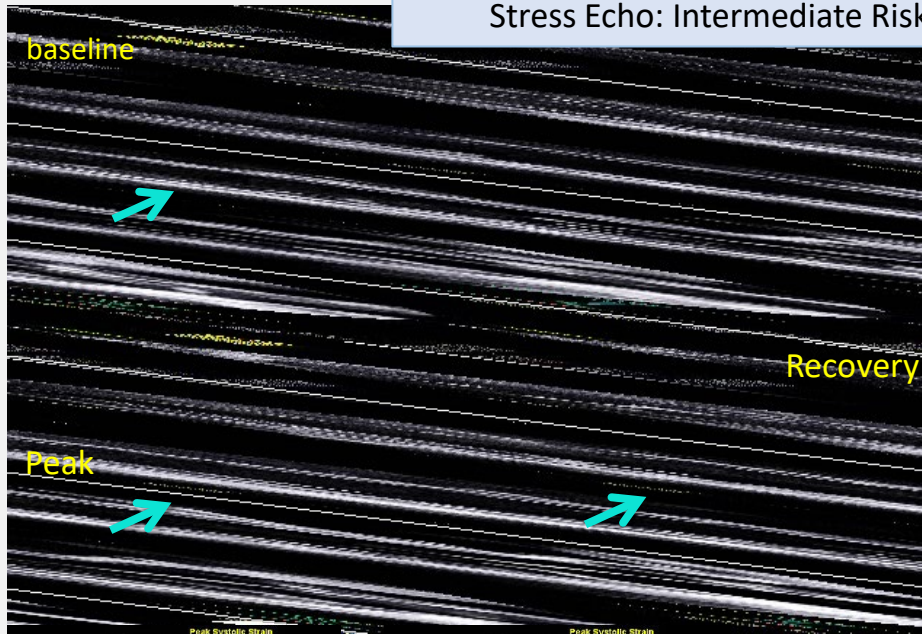
Rainbow Falls, Hilo, HI 2019

## Stress Echo: Intermediate Risk, No Known CAD



56 yr diabetic male with hypertension with new dyspnea on exertion, no chest pain, abnormal ecg and unable to exercise

# Stress Echo: Intermediate Risk, No Known CAD



Global longitudinal strain

Baseline

Recovery

Level	Mid dose	HR, Avg
GLPS_LAX	-9.0%	111.0
GLPS_AVG	-10.8%	110.0
GLPS_MIN	-18.4%	109.0

Level	Peak dose	HR, Avg
GLPS_LAX	-13.5%	122.0
GLPS_AVG	-17.3%	121.0
GLPS_MIN	-25.0%	120.0

56 yr male DM, HTN, with new dyspnea on exertion, no chest pain, abnormal ecg and unable to exercise.

# Question

Stress testing and the ischemic cascade.  
Which is the correct order of progression?

- A. decr. subendo perfusion → diastolic dysfxn → segmental WMA → global systolic dysfxn
- B. diastolic dysfxn → decr. subendo perfusion → segmental WMA → global systolic dysfxn
- C. global systolic dysfxn → segmental WMA → diastolic dysfxn → decr. subendo perfusion
- D. none of above

# Question

Stress testing and the ischemic cascade.  
Which is the correct order of progression?

- A. decr. subendo perfusion → diastolic dysfxn → segmental WMA → global systolic dysfxn
- B. diastolic dysfxn → decr. subendo perfusion → segmental WMA → global systolic dysfxn
- C. global systolic dysfxn → segmental WMA → diastolic dysfxn → decr. subendo perfusion
- D. none of above

A. decr. subendo perfusion → diastolic dysfxn → segmental WMA → global systolic dysfxn

JACC Vol. 60, No. 24, 2012  
December 18, 2012:e44–e164

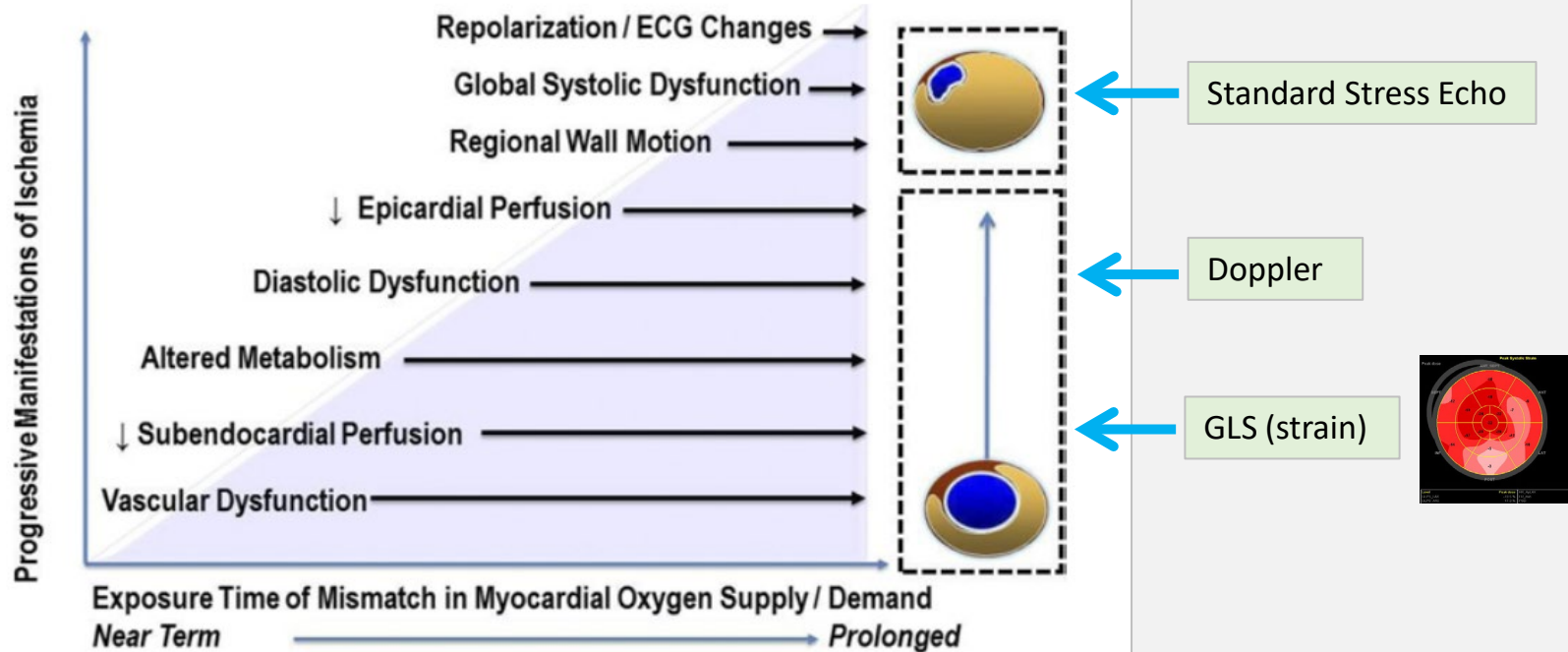


Figure 7. The Ischemic Cascade