Echo in Ischemic HF

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NO disclosures
WHEN IMAGING?

CLASS I

**Two-dimensional echocardiography with Doppler should be performed during initial evaluation of patients presenting with HF to assess LVEF, left ventricular size, wall thickness, and valve function. Radionuclide ventriculography can be performed to assess LVEF and volumes. (Level of Evidence: C)**

*Circulation. 2009;119:e391-e479*

**Confirmation by echocardiography of the diagnosis of heart failure and/or cardiac dysfunction is mandatory and should be performed shortly following suspicion of the diagnosis of HF. Echocardiography is widely available, rapid, non-invasive, and safe, and provides extensive information on cardiac anatomy (volumes, geometry, mass), wall motion, and valvular function. The study provides essential information on the aetiology of HF. In general a diagnosis of heart failure should include an echocardiogram.**

*Eur J Heart Fail (2008), 933–989*
• Almost 2/3 of the cases with LV dysfunction are due to CAD.

♥ Acute: Stunning
♥ Chronic: Hibernation

• Both potentially reversible.

• How:
  – 1.- Rest echo data (LV mechanics)
  – 2.- Stress echo
  – 3.- Contrast echo
Prognosis

- Systolic function

![Graph showing 6 months mortality against Echo-LVEF]

*Circulation 1993;88:416*
Prognosis - WM Score

Survival

- < 1.5
- 1.5-2.0
- > 2.0

Years

88% 82% 72%
Not always easy
Improving prediction of functional recovery adding Strain info (S 93%).

**Pros**

- Less dependent on Image quality
- Less subjective than WM analysis
- Incremental value to predict functional recovery
CONCLUSIONS

• CAD is one of the most prevalent causes of LV dysfunction.

• Detecting ischemia is crucial in patients with HF.

• NEW methods of assessing LV mechanics at rest or during stress provides improvement in S and Spec.

• Echo also assess complications