

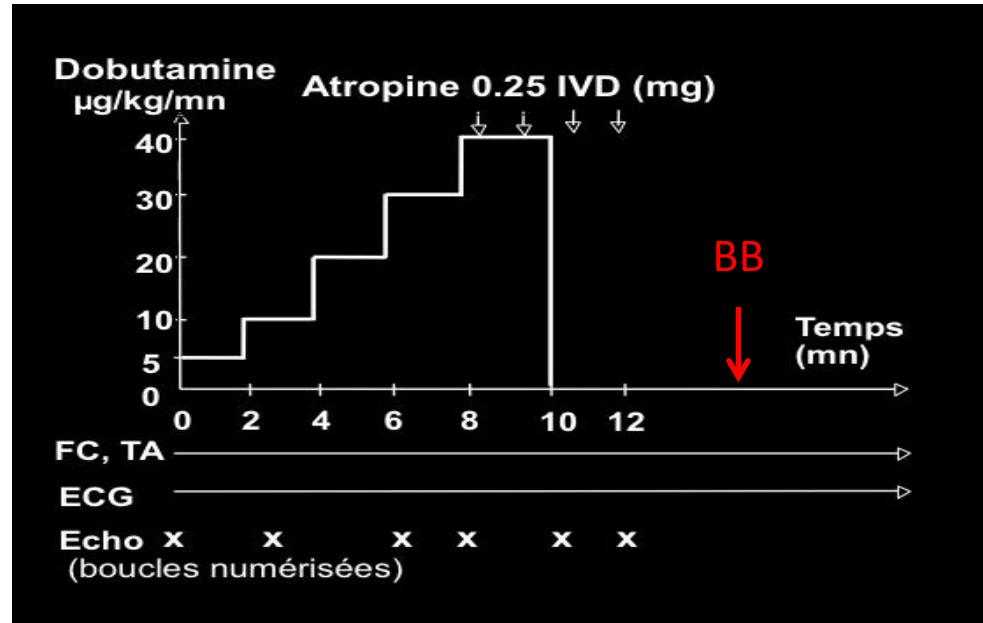


ECHOGRAPHIE DE STRESS

Pr Gilles Barone-Rochette
Interventional cardiology and cardiac imaging
Pôle Thorax et vaisseaux- CHU de Grenoble
Inserm 1039

2^{eme} Congrès : Journées Francophones de Médecine Nucléaire
Samedi 21 mai 2016
Grenoble

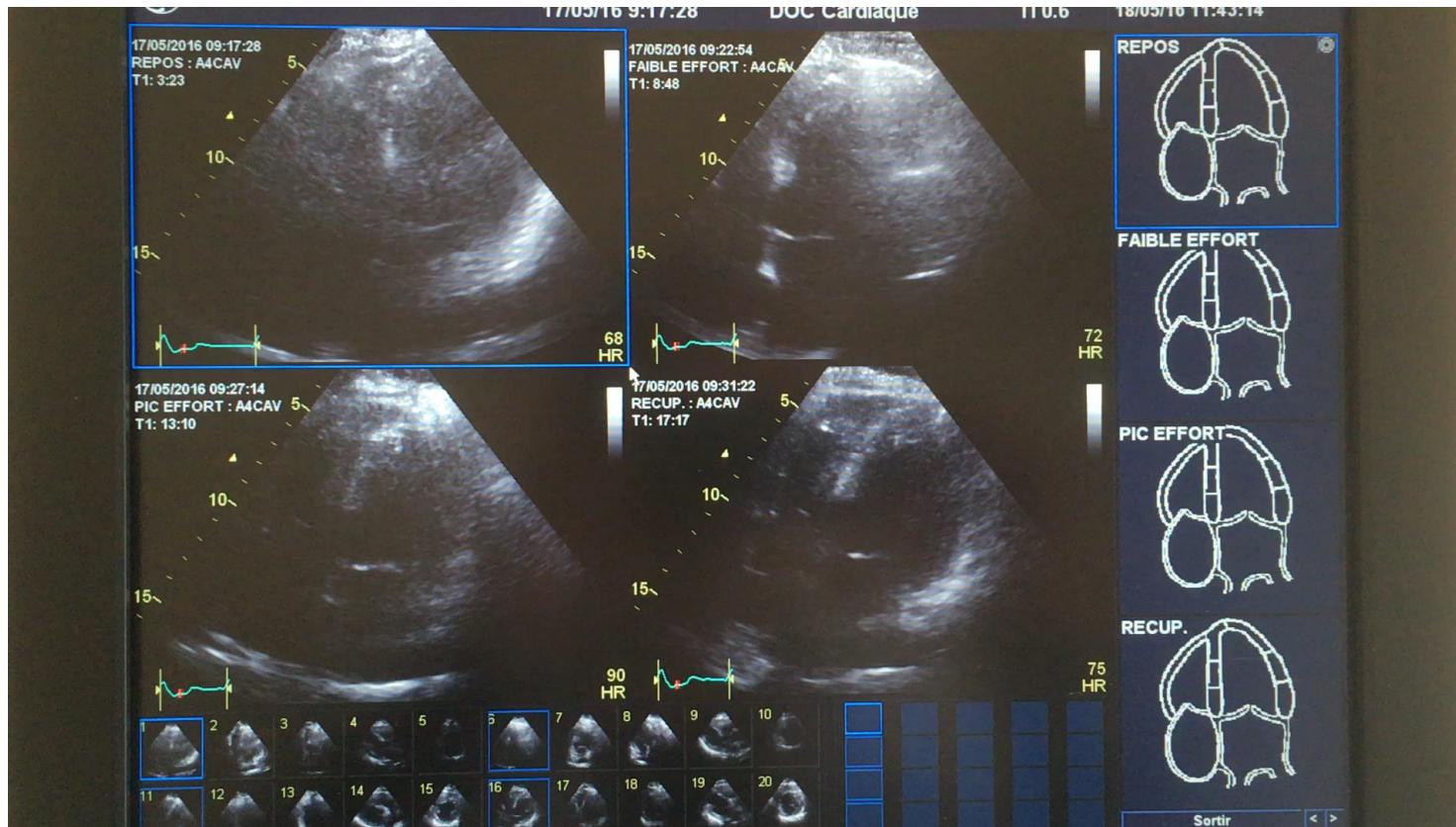
Echo de stress et d'effort



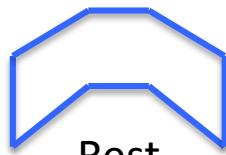
Presti et al. J Am Soc Echo. 1988;2:119-26
Hecht et al. J Am Soc Echo. 1993;6:265-71

Badruddin et al. JACC 1999;3:1485-90
Peteiro et al. J Am Soc Echo. 1999;12:1073-9

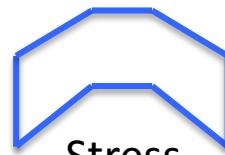
In clinical practice



Stress Echography in 4 equations

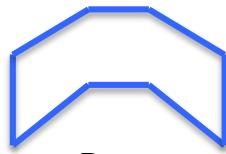


Rest



Stress

NORMAL



Rest

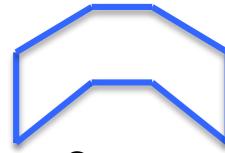


Stress

ISCHEMIA



Rest



Stress

VIABILITY



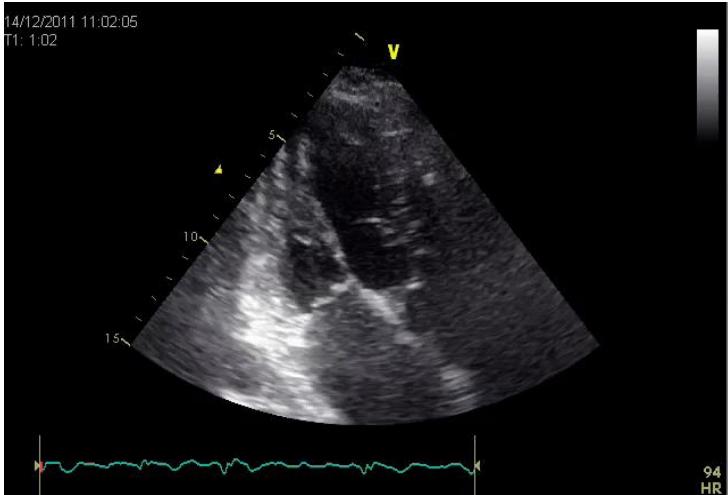
Rest



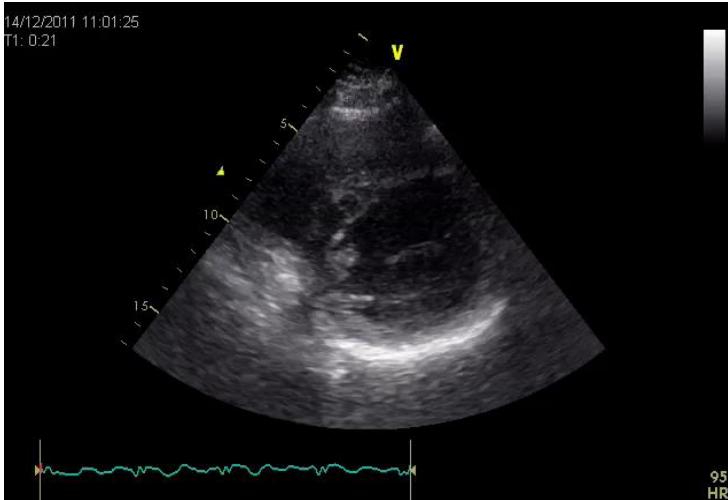
Stress

NECROSIS

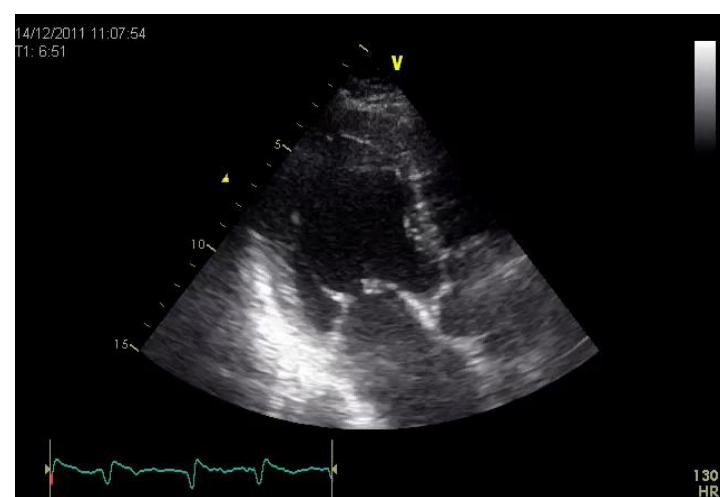
14/12/2011 11:02:05
T1: 1:02



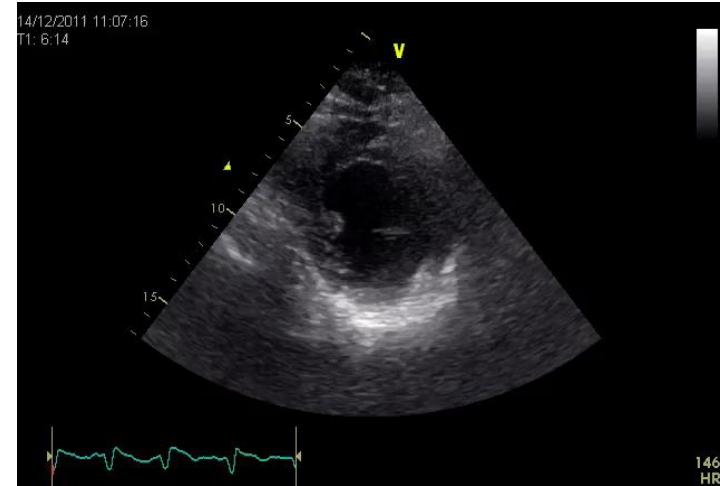
14/12/2011 11:01:25
T1: 0:21



14/12/2011 11:07:54
T1: 6:51



14/12/2011 11:07:16
T1: 6:14



Improve performance

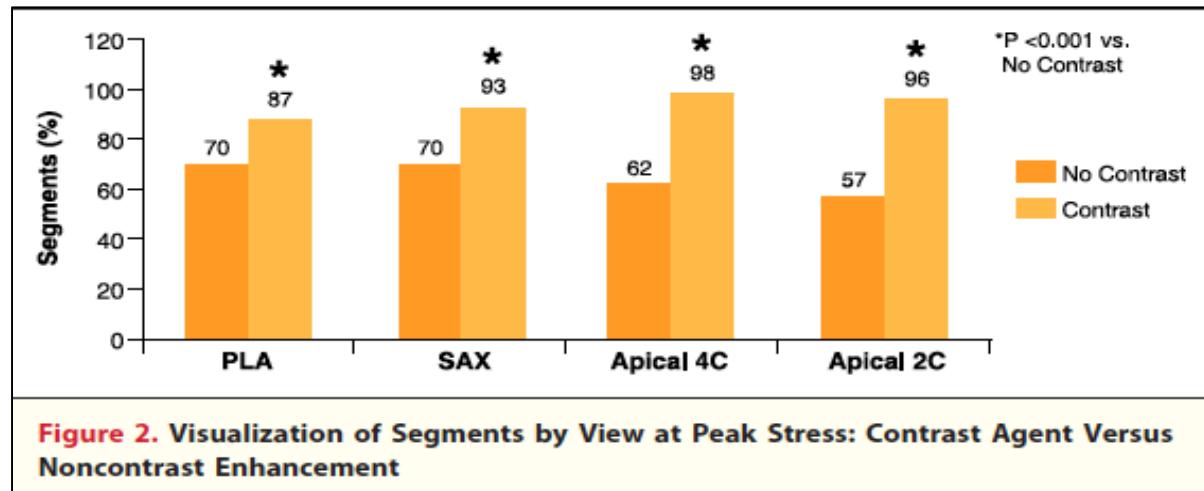
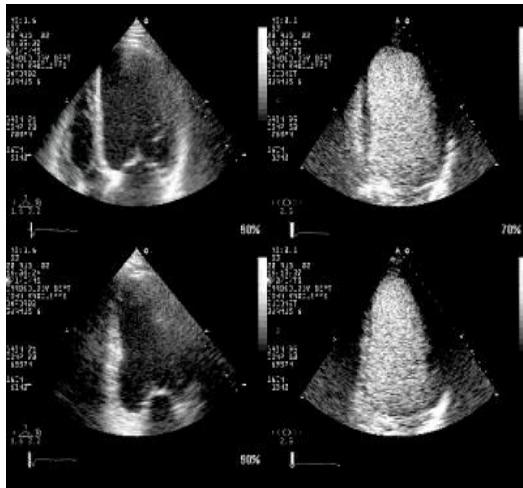


Figure 2. Visualization of Segments by View at Peak Stress: Contrast Agent Versus Noncontrast Enhancement



Price : 90.10 €

Follow up : 30 min after exam

Software

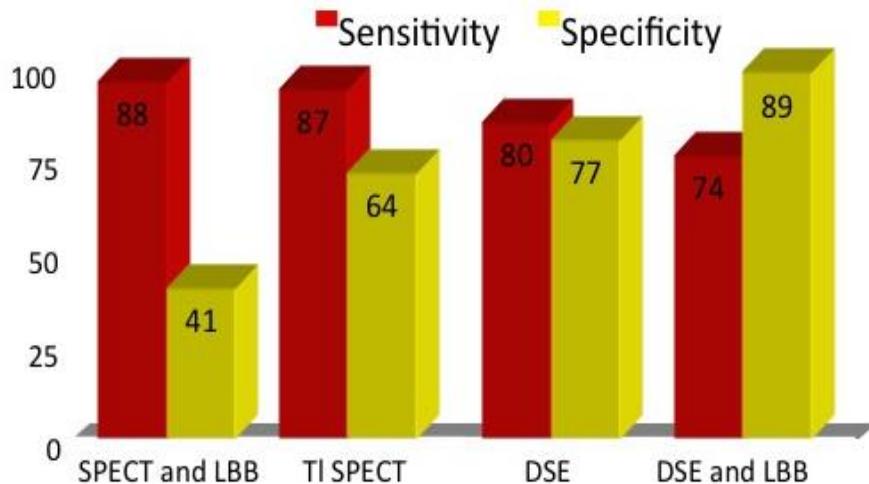
Contraindication

Plana et al. J Am Coll Cardiol Img 2008;1: 145–52

- Parameter : Ischemia, EF, volumes, prognosis value, valvular disease, CRF (?), NO PERFUSION
- 5 to 10 % poor image quality, variability inter observatory
- Price 165.21 €
- Available / Self-prescription

Cortigiani & al. Am J Cardiol 2007 ; 99 : 1491–1495
ESC Guidelines EHJ 2013

Se and Sp and learning curve



Fleischmann KE et al. JAMA. 1998;280:913-20

Biagini et al. Eur J Nucl mol Imaging 2006; 33: 1442-1451

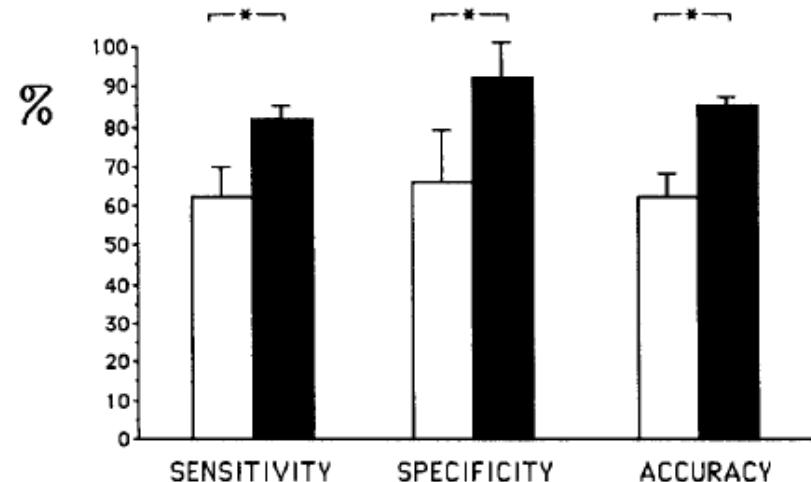


Figure 1. Histograms showing the sensitivity, specificity and diagnostic accuracy for the two groups of observers (beginners [white bars] versus experts [black bars]) reviewing the same set of 50 videotapes. * $p < 0.0001$.

Picano et al. JACC 1991

To conclude

