

Predictors of outcome in PPH

Which echo parameters?

Right ventricle systolic pressure alone is not enough because:

1. After treatment the reduction of pulmonary systolic pressure is minimized by the increase in cardiac output (p=0.28)
2. Doppler tends to underestimate pulmonary arterial pressure (- 11 ± 2 mm Hg) compared to invasive measurements in multicentre trials (- 20 mmHg in 31% of patients)

1. Galiè, JACC 2003;41:1380

2. Hinderliter, Circulation 1997;95:1479

Experience of University of Bologna

Echo parameters related with survival that reached a statistical significance in 121 patients with idiopathic PPH:

Univariate analysis

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| 1. Area of of color jet of tricuspid regurgitation | p = 0.004 |
| 2. Right ventricle end-systolic area | p=0.02 |
| 3. Right ventricle Tei index | p=0.04 |
| 4. Moderate to severe pericardial effusion (score 3-4) | p=0.05 |
| 5. Right ventricle end-diastolic area | p=0.05 |

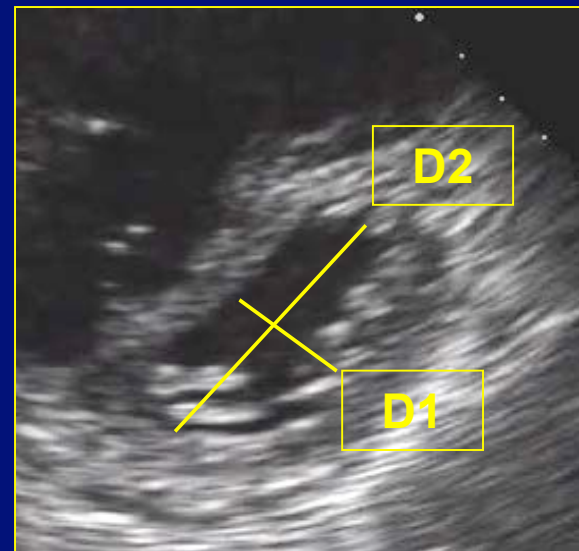
Cox stepwise regression analysis

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|--|------------------|
| 1. <u>Area of color jet of tricuspid regurgitation</u> | <u>p = 0.006</u> |
| 2. Right ventricle Tei index | p=0.04 |

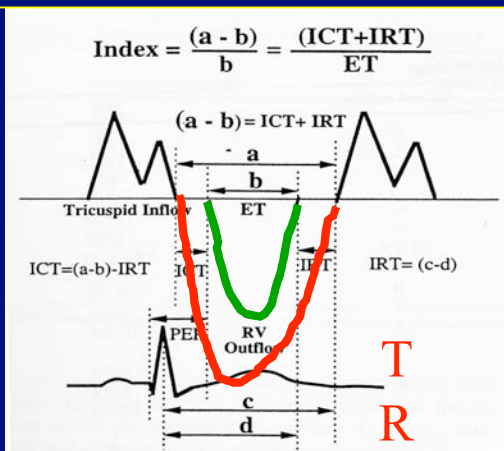
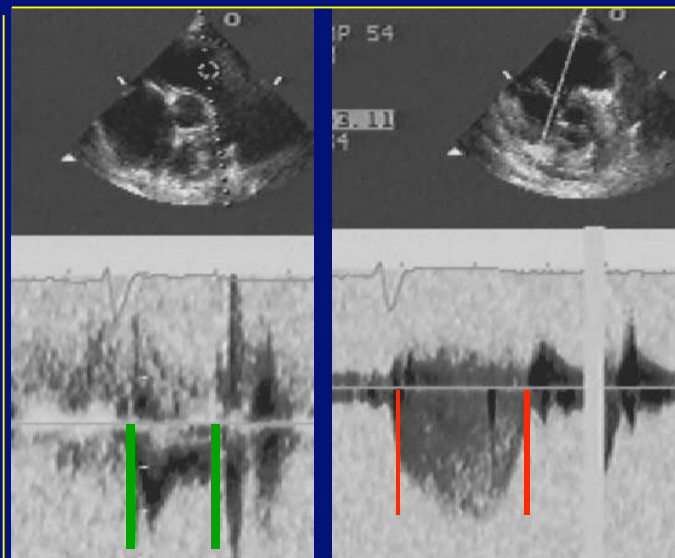
Echo predictors of bad prognosis in PPH



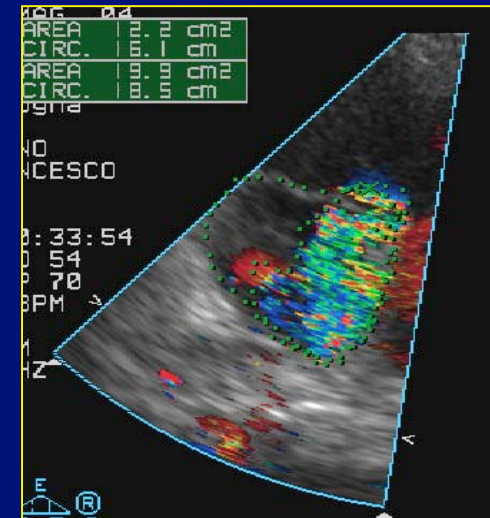
Pericard. eff. > 1 cm



D2 / D1 > 1.8



TEI index > 0.88



jet area > 5.5 cm²