

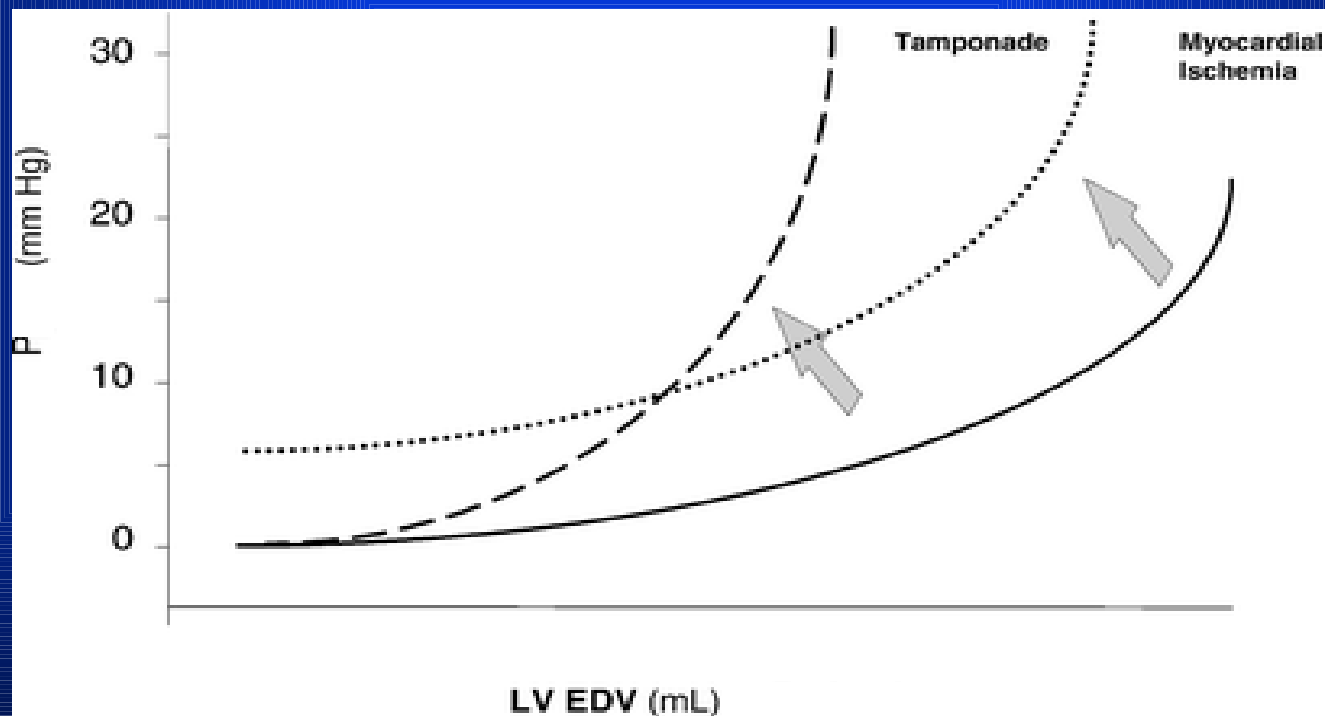
ASSESSING RIGHT HEART PRELOAD

Antoine Vieillard-Baron, Boulogne, France

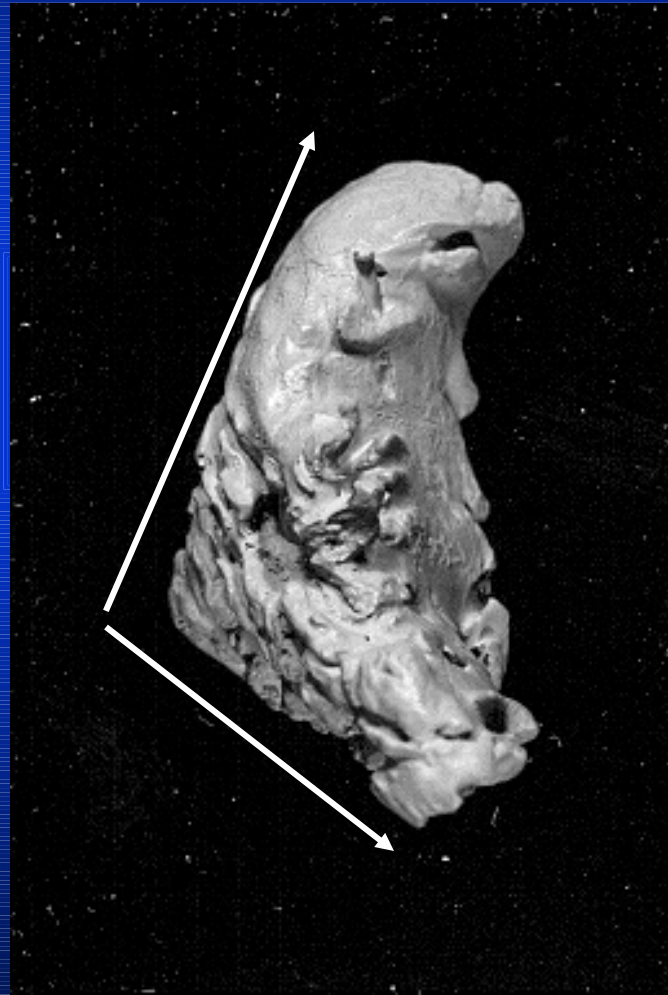
WHAT IS PRELOAD?

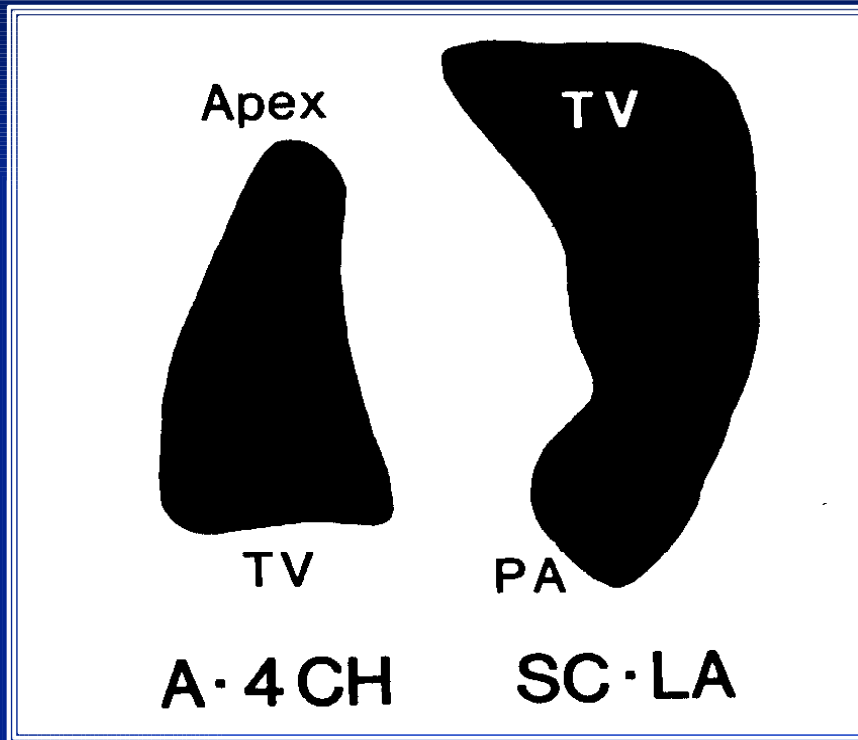
– Volume, area?

– Pressure?

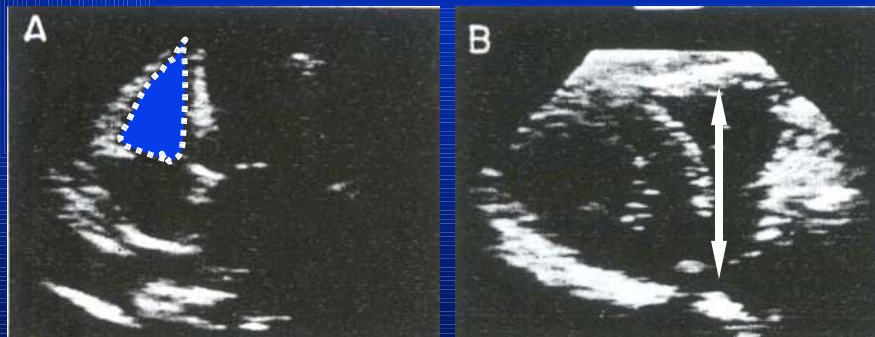


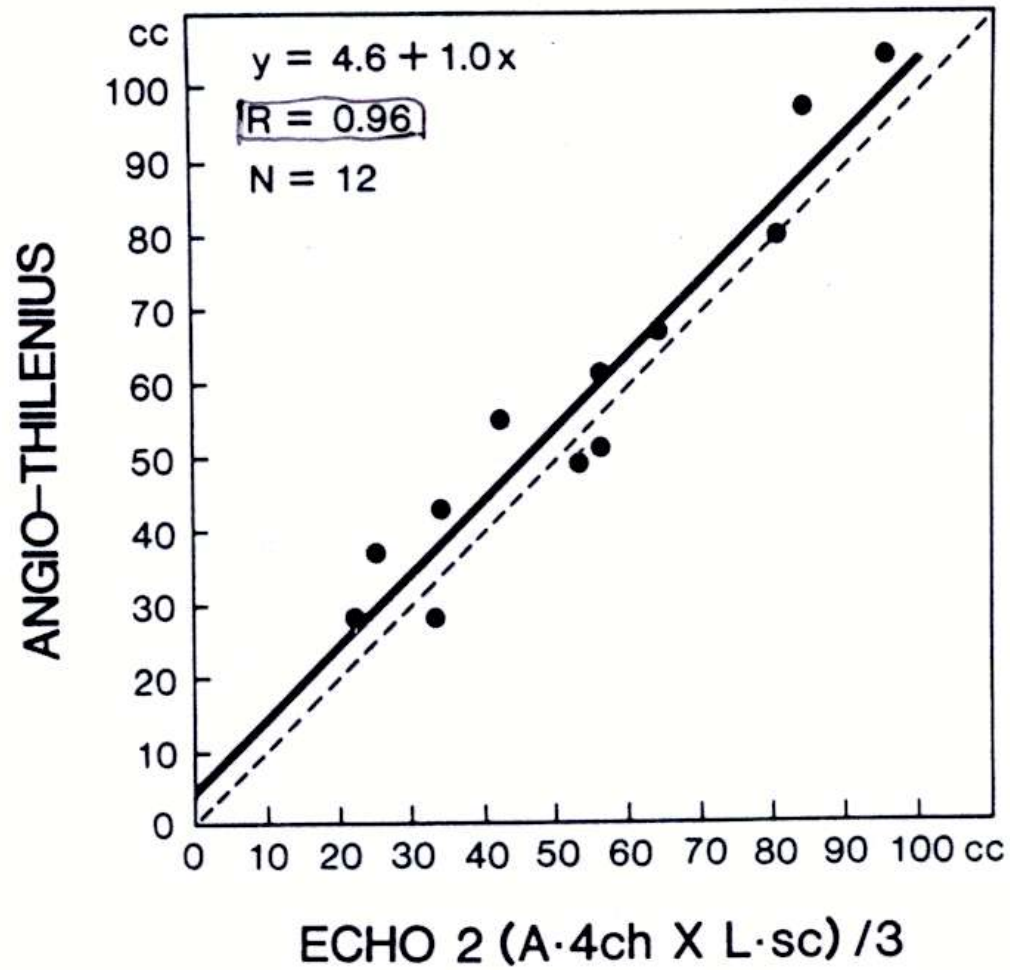
RV END-DIASTOLIC VOLUME





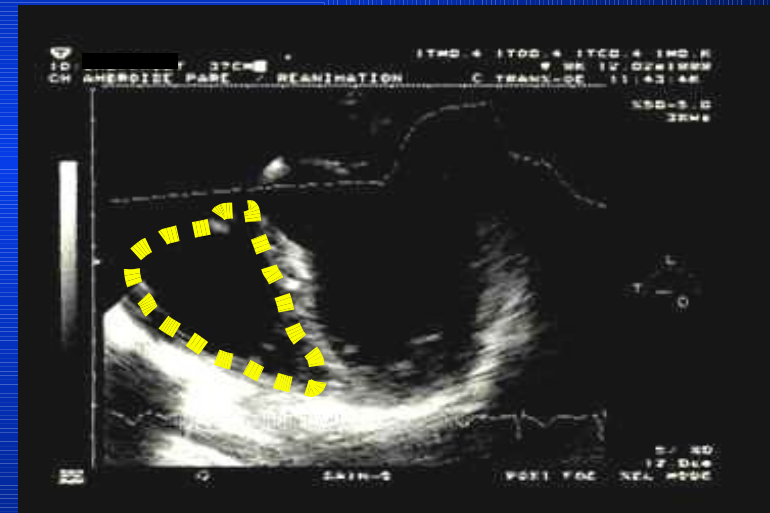
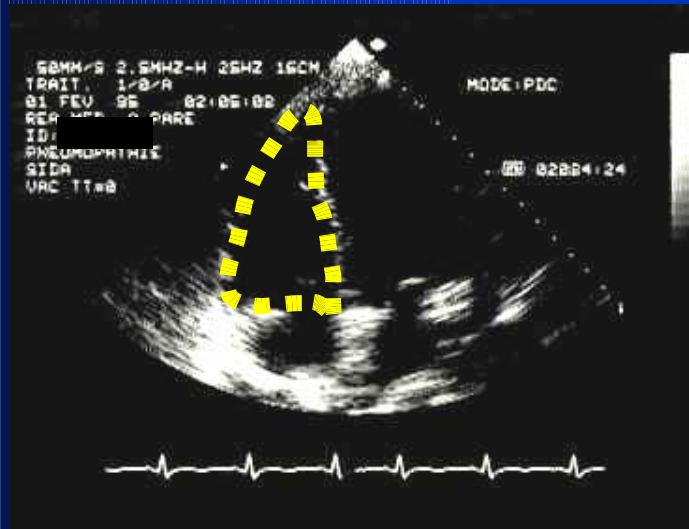
$$V = 2/3 (A \times L)$$



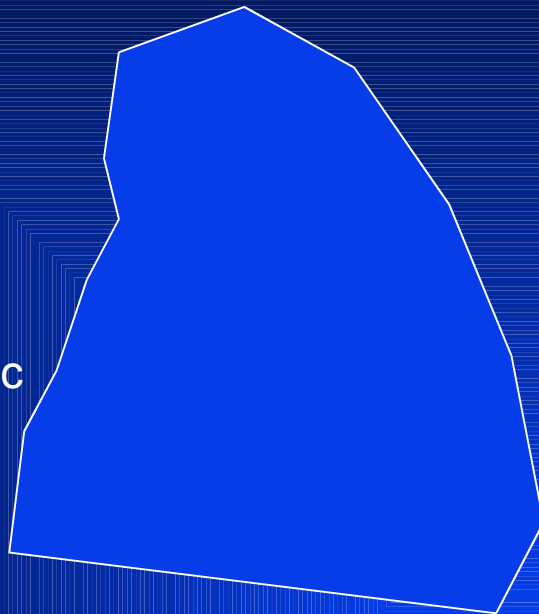


Gibson Am J Cardiol 1985

RV END-DIASTOLIC AREA



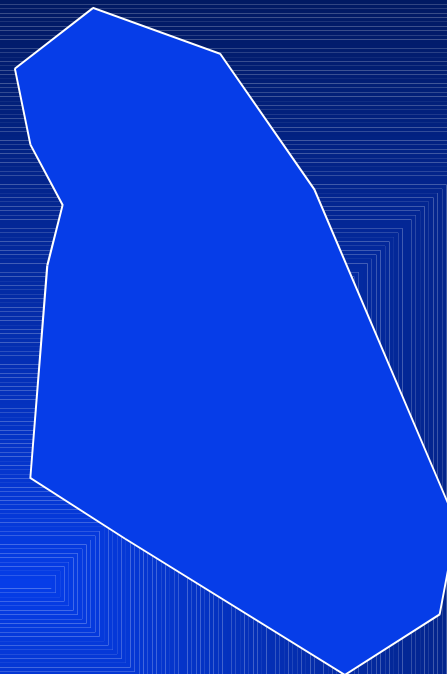
Tric



Frontal view

$r = 0.86$

Tric

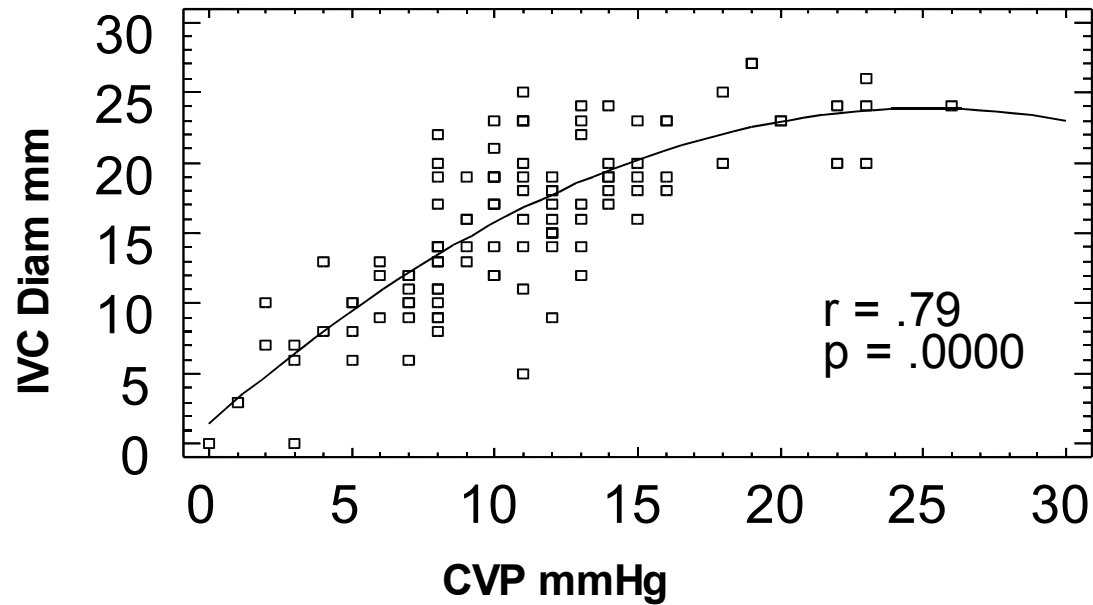


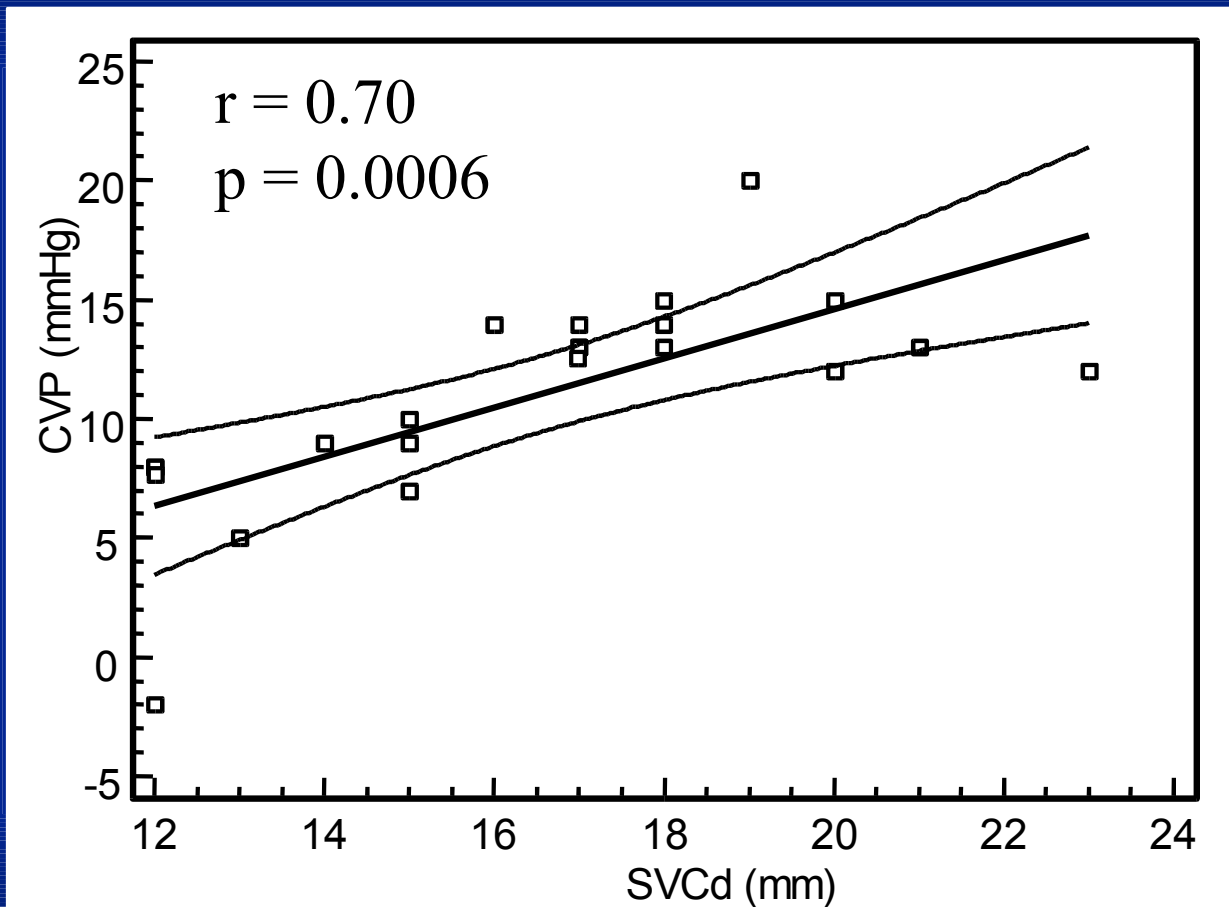
Lateral view

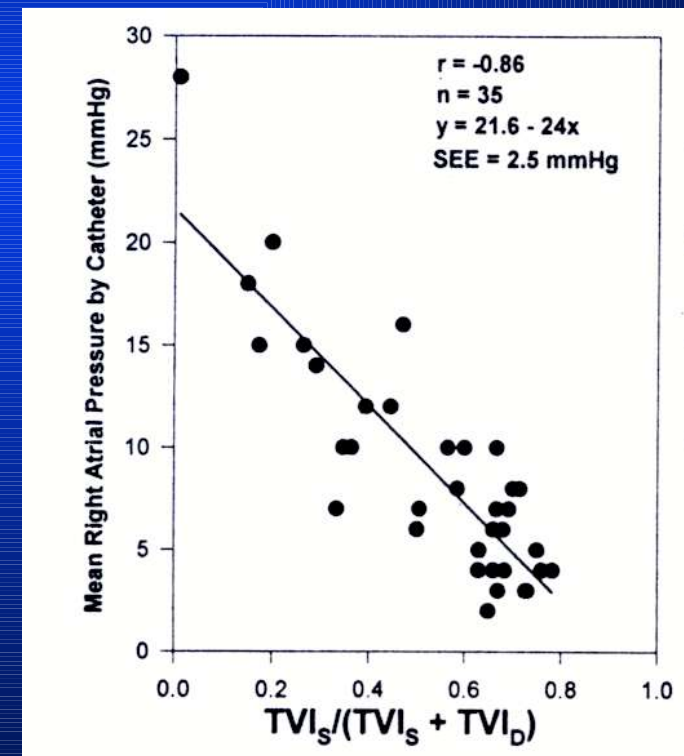
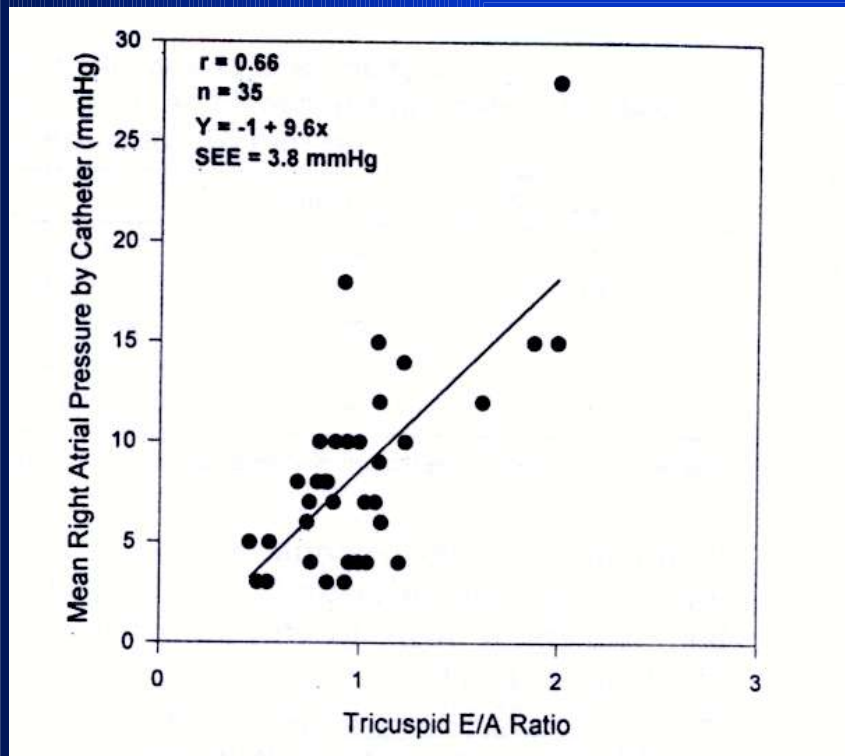
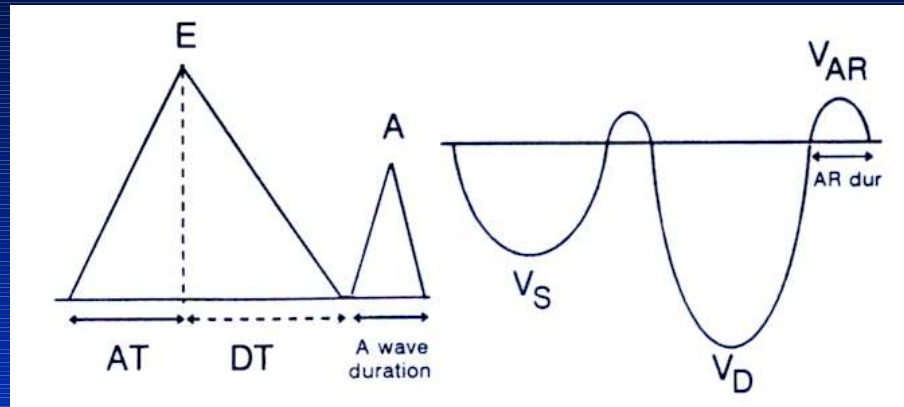
$r = 0.92$

PRESSURE EVALUATION

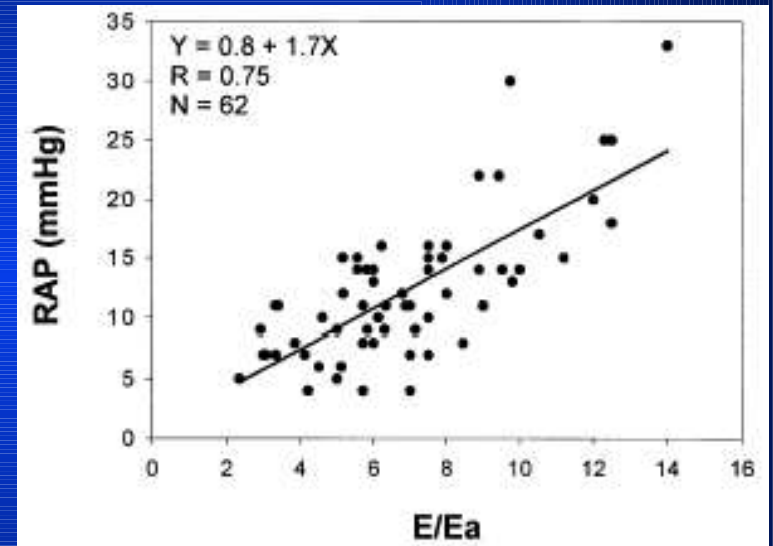
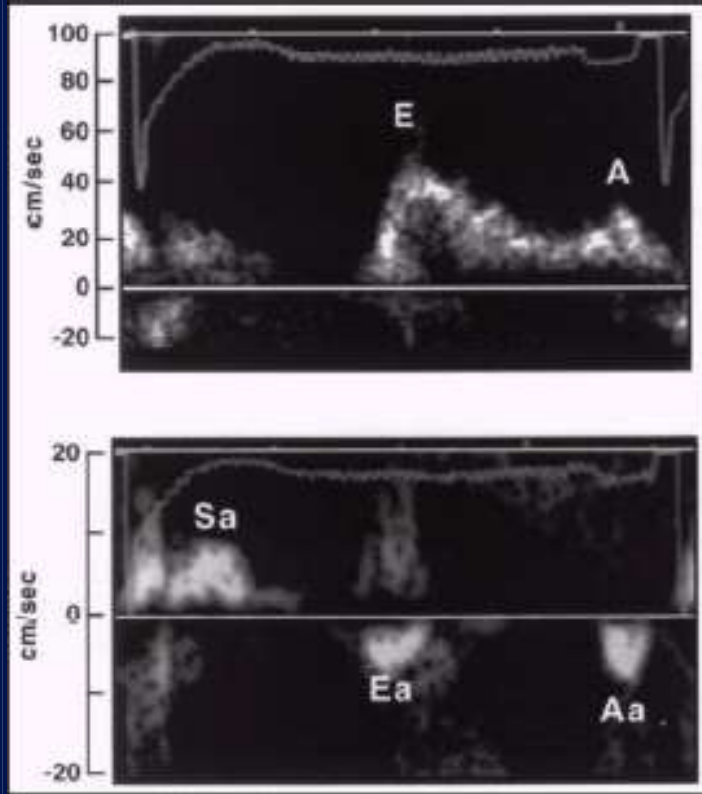
CVP/RVEDP







N = 62 KT vs DTI

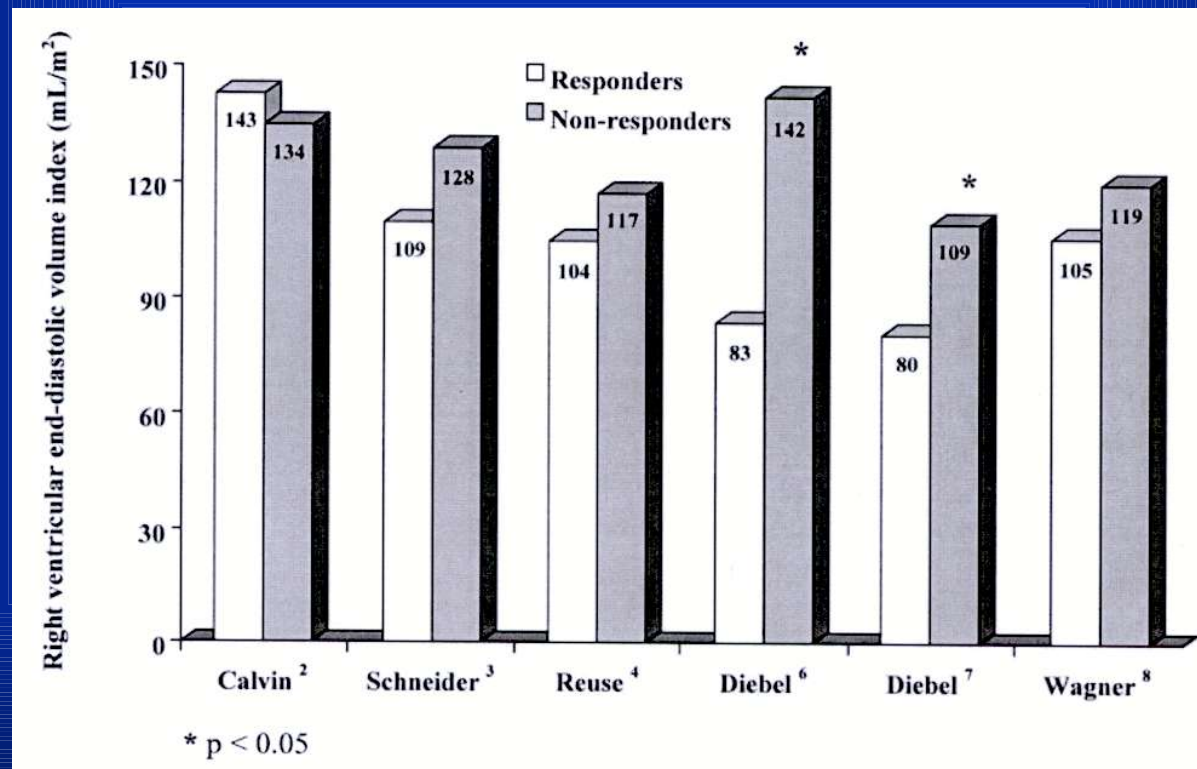


(Sens 79 %, Spe 73 %)

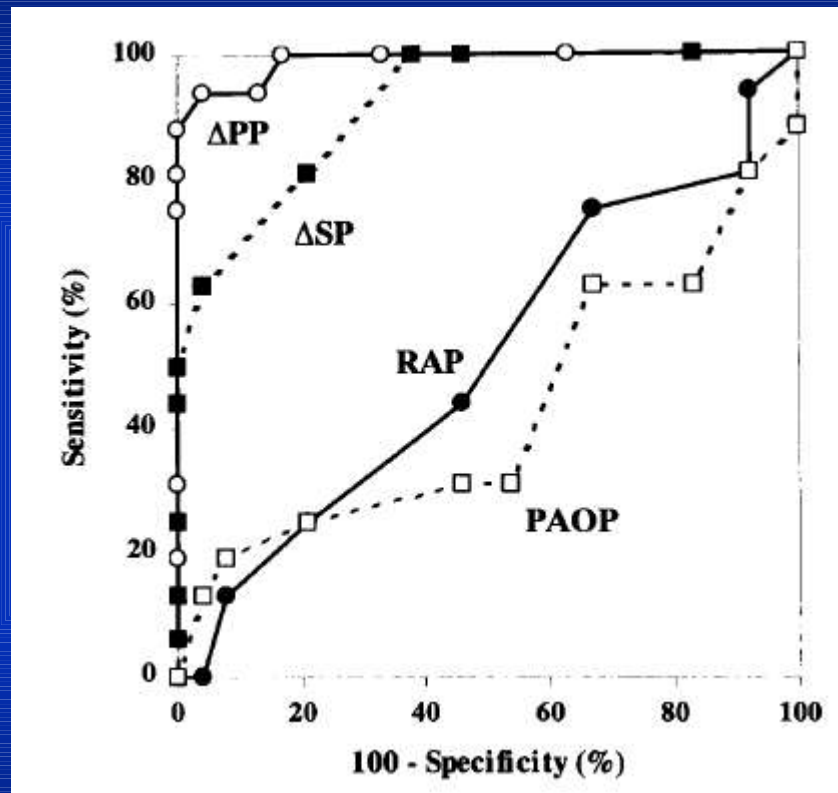
$E/Ea > 6$

$RAP > 10 \text{ mm Hg}$

HOWEVER, WHICH ARE THE CONSEQUENCES?



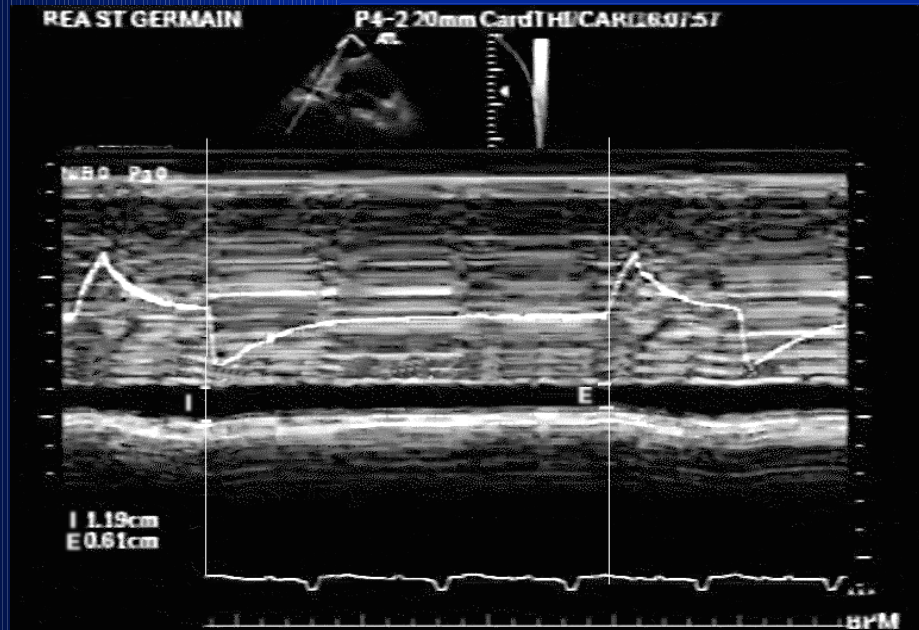
Michard Chest 2002



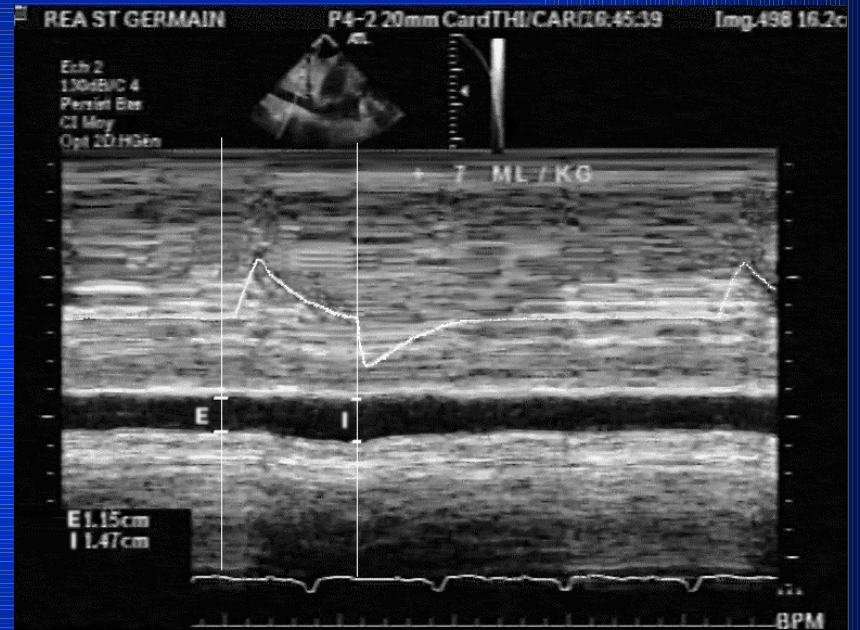
Michard AJRCCM 2000

IT'S MUCH BETTER TO EVALUATE RV PRELOAD RESERVE





dIVC = 95 %
CI = 1.8 L/min/m²



dIVC = 28 %
CI = 2.6 L/min/m²

THE END