

EMERGENCY ECHO RIGHT HEART ASSESSMENT

This is a limited ED echo study that aims to:

1. Determine the size and shape
2. Determine right heart function
3. Determine right sided pressures

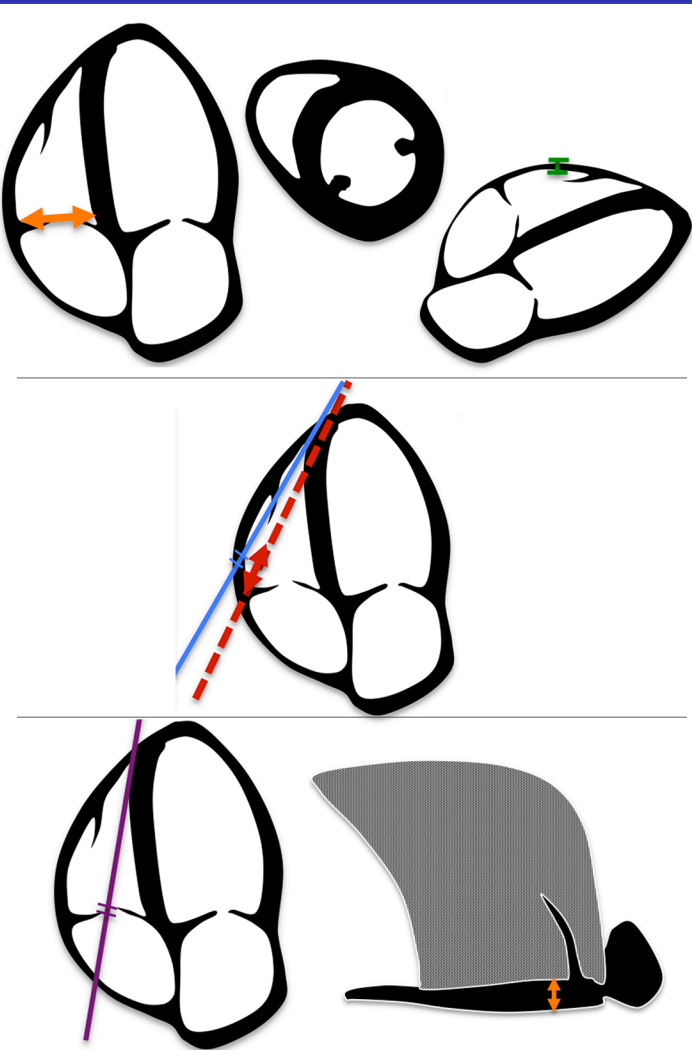
Patient details

History: _____

IMAGES

NOTES

FINDINGS



RV size, shape and free wall thickness

Normal size < 42 mm across base
< 35 mm mid level
< 86 mm length

RV : LV ratio Normal if RV < 60% LV
Mild dilation if RV 60 - 100% LV
Moderate dilation if RV = LV
Severe dilation if RV > LV

Right Atrial Area normally < 18 cm²

Shape D-shaped septum = raised RV pressure or volume
Apex normally LV; if RV then severe dilation
McConnell's sign associated with PE

Free wall thickness < 5 mm normal
> 5mm = hypertrophy - chronic pulm hypertension

RV function reduced if

TAPSE < 17mm (mean 24 mm)
S' < 9.5 cm/sec (mean 14 cm/sec)
FAC < 35 % (mean 49 %)

Right Ventricular Pressure (PA syst pressure)

TR V max + RA pressure = RV peak pressure
TR V max : CW through TV in ap 4 ch view

RA pressure from IVC assessment

IVC < 2.1 cm & > 50 % collapse = 3 mm Hg
IVC < 2.1 cm & < 50 % collapse = 8 mm Hg
IVC > 2.1 cm & > 50 % collapse = 8 mm Hg
IVC > 2.1 cm & < 50 % collapse = 15 mm Hg

Pulmonary artery systolic pressure

Normal pulm artery pressure 12 - 16 mm Hg
Mild pulmonary hypertension 25 - 40 mm Hg
Mod pulm hypertension 41 - 55 mm Hg
Severe pulm hypertension > 55 mm Hg

VIEWS

Adequate

Inadequate

Subcostal

Parasternal

Apical 4 chamber

RV size, shape and RV free wall thickness

RV function

TAPSE _____ mm

Other _____

PA systolic pressure

TR V max calculated pressure gradient _____ mm Hg

RA pressure calculated from IVC + _____ mm Hg

PA pressure = _____ mm Hg

Other comment

Conclusions: _____

USS findings must be consistent with clinical suspicion; intergrate history, examination, investigations and USS findings to reach a conclusion. Seek urgent comprehensive USS or CT if uncertainty remains

Name: _____

Signature: _____

Date: _____