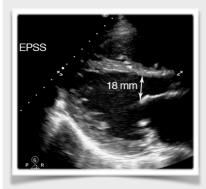
Abrar Waliuddin 25 October 2017

# SONIC BOOM

### Ultrasound | Special Skills | Newsletter no: 6

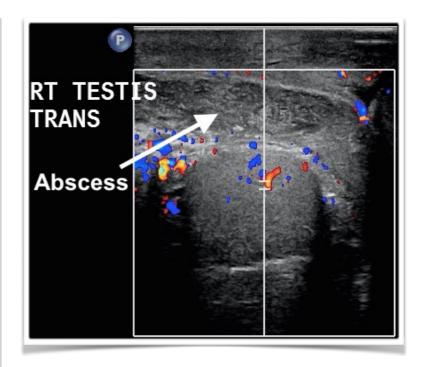
#### LV Ejection Fraction

One simple method to estimate EF is to measure the distance from the mitral valve to the septum in mid diastole. This is known as the E-point Septal Separation (EPSS), which correlates well with the EF in a structurally normal heart.



An EPSS < 7 mm is considered normal, while EPSS > 10 mm suggests a low EF. This measurement can be made more accurately when M-mode is used across the tip of the mitral valve in the PLAX view.

Remember that significant mitral stenosis or aortic insufficiency can falsely increase the EPSS measurement, lowering your estimation of the patient's ejection fraction. (Image courtesy of ultrasoundoftheweek.com)



# **Scrotal Abscess**

Elderly nursing home patient presented SOB, CCF, subjective fevers and penile discharge. You notice the scrotal area is swollen as well. His observations are normal. Testicular US picked up this scrotal wall abscess. Putting on 'colour' enables you to judge vascular flow to the testicle for viability and collection. for ?abscess ? haematoma. Later, a CT scan showed a penile abscess and prostatitis. This man's illness was further compounded by NSTEMI. Eventually taken to OT for I&D.



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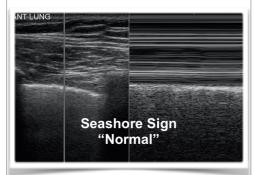
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#### **Normal Lung**

#### VS

#### **Pneumothorax**

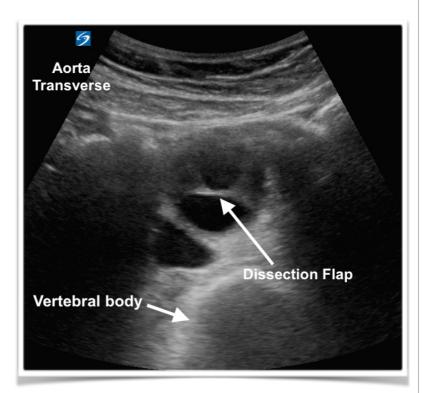
Lung Sliding in 2D mode can be confirmed by placing the M-mode cursor in the intercostal space which demonstrates the normal 'seashore sign' (see below).



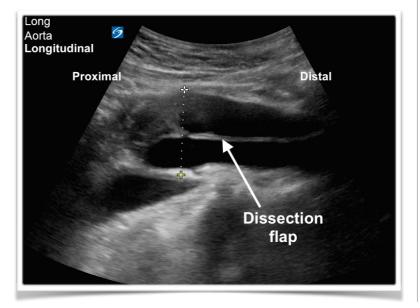
Above was this patient's normal left lung. His Pneumothorax was on the right side. Doing the same on 2D + M-mode gives us a distinctly different image called the abnormal 'Barcode sign' indicating lack of lung sliding in a pneumothorax (on the right in the image below).



## **Aortic Dissection**



66yo female with flank/back pain for a week, diagnosed as a 'UTI' initially followed by a non-urgent CT Abdomen. Dual diagnosis here with a short segment 4cm AAA and dissecting flap down into the Left CIA. Important management issues include examination of left lower limb neurovascular status and BP control with aim for SBP < 120. This lady was conservatively managed in ICU.



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