# SONIC BOOM

#### **Aortic Dissection**

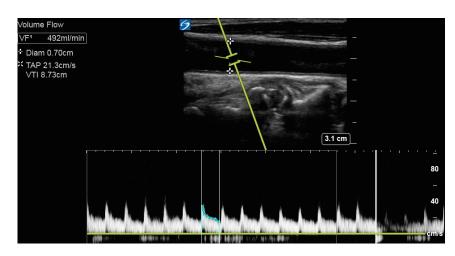
The great Imitator



This above scan is the latest in a series of Aortic Dissections during this term. This was a patient actually sent in with suspicion for AAA but ended up a 2 second spot diagnosis of dissection. The intimal free flap was pulsating with the heart beat. Presence of a intimal flap has a 99% specificity for Aortic Dissection. I managed to trace this flap all the way from the proxzimal aorta at the diaphragm down to it's extension into the Common Iliac Arteries. There was involvement of the Left Renal Artery causing Acute Renal Failure. Echo views showed a normal aortic root with no haemopericardium.

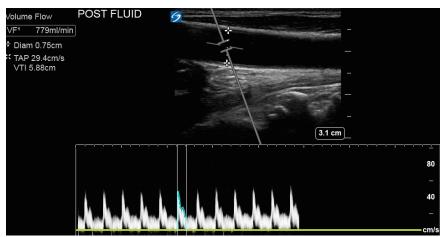
The rapid bedside US led to an expeditious Vascular team review, Arterial Line and BP control.

## Carotid Doppler Flow as measure of Fluid Responsiveness



In this patient, I performed Carotid Doppler flow measurements on arrival and after a 500ml fluid challenge. Her carotid flows went from 492ml/min to 779ml/min. You can literally see the change in Doppler waveform – taller and narrower. Manoever is easily performed by measuring the common carotid diameter followed by putting the Doppler 'gate' in line with the flow.

Increase in Carotid Artery
Doppler Flow by 20%
following a fluid challenge
or passive leg raise is
highly predictive of fluid
responsiveness. Sensitivity
94% and Specificity 86%
Easier to teach and perform
in a critical pt.



### **FAST views in Sepsis**



This yo lady was brought in hypotensive, tachycardic and hypoxic with generalized abdominal discomfort. Symptoms were ongoing for atleast a week. In a patient like this, do not hesitate to perform a FAST examination!! All FAST views of her abdomen showed extensive intraperitoneal free fluid as seen in this RUQ view (adjacent pic). The fluid in her pelvis was 'dirty' with particulate matter suggestive of bowel contents rather than blood. This finding along with the clinical picture was extremely suggestive of Ischaemic Gut, which turned out to be the case – 50cm of bowel removed at surgery. Ultrasound for the win!!

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## **Cholecystitis on Ultrasound**



These amazing pictures were obtained at the bedside!! Lassisted one of our own Registrars, Matt Birdsey. It demonstrates a 2cm gallstone impacted at the neck of the gall bladder with thickened wall and peri-cholecystic fluid. She was admitted and actually taken to OT.

