

PITFALLS AND PRATFALLS

Stuffing up with critical care US

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Critical Care US Course

Can pericardial tamponade occur
without obvious pericardial fluid on
US?

Tamponade without obvious pericardial fluid

- Lungs: clear
- IVC: big
- Right ventricle: diastolic collapse
- *But what if you can't see pericardial fluid?*
 - Post-op cardiac surgery*
 - Clotted blood (echogenic)*

Can interstitial lung disease mimic
APO?

Chronic interstitial lung disease

- Lung fibrosis: B lines++
- IVC: big (if cor pulmonale)
- Right ventricle: high pressure (if cor pulmonale)
- *So it can mimic APO*

How can you tell it's fibrosis?

- APO B lines throughout the chest, plus (usually) effusions and (possibly) signs of LV disease on TTE
- Fibrosis B lines may be just upper / just lower
- Fibrosis: pleural line ragged / thickened
- **Above all, clinical context**

BUT... sometimes you can't tell.

- What if the fibrosis patient develops APO?

Can you tell apart PE & chronic cor
pulmonale?

It's tricky!

PE

- Lungs dry
- maybe big RV
- maybe big IVC
- **Might** see DVT

COPD + Cor pulmonale

- Lungs dry
- Big RV (thick wall)
- Big IVC
- **Shouldn't** have DVT

Go back to the clinical picture

But what if a patient with chronic cor
pulmonale develops a PE?

Sometimes US just can't help

- Options
 - Start treatment for PE
 - Get a formal study

Can PE mimic pneumonia?

Yes

- Both can demonstrate 'consolidations'
- Both can demonstrate localised B pattern
- I have seen PE mimic pneumonia
- But the clinical context made things clear

Can microconsolidations occur in
normal patients?

Maybe

- (thanks Dr Kylie Baker)
- Isn't one of the lung's roles to filter out microthrombi?
- Time will tell

Now...

Some practical stuff-ups

Operator said 'dilated LV'. What's the mistake?

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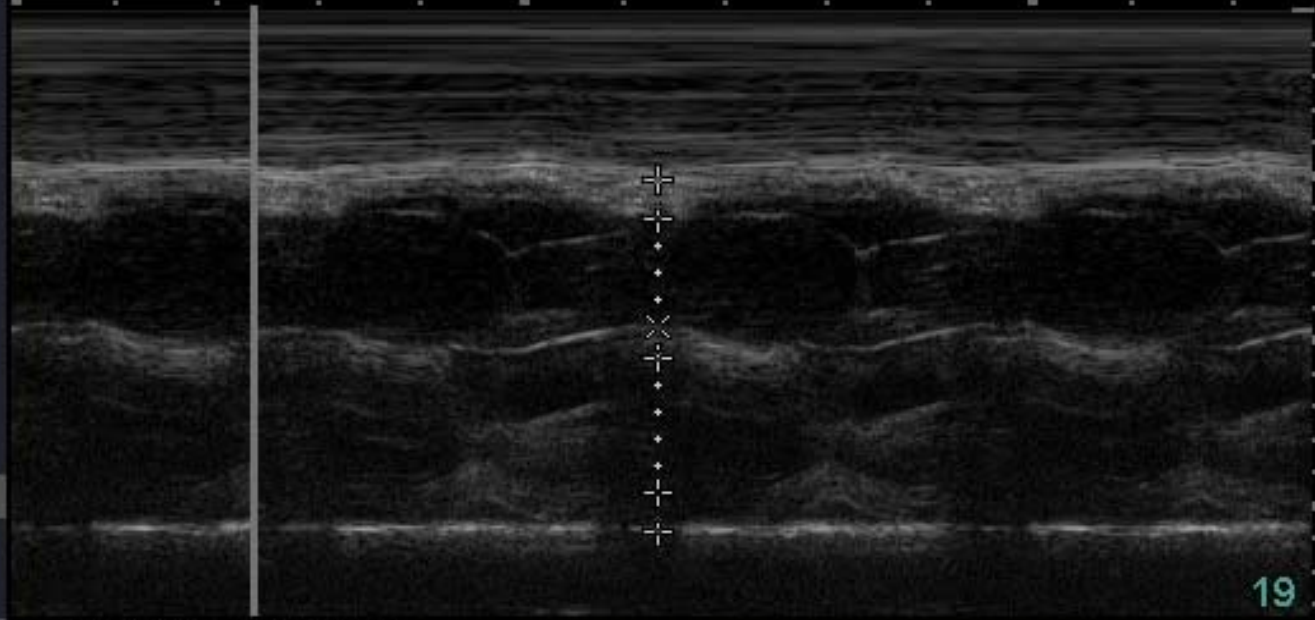


96%

TIS
0.3



- LVd
- RVW
- ✓RVD
- ✓IVS
- ✓LVD
- ✓LVPW
- LVs
- ✓RVW
- ✓RVD
- ✓IVS
- ✓LVD
- ✓LVPW
- Next...



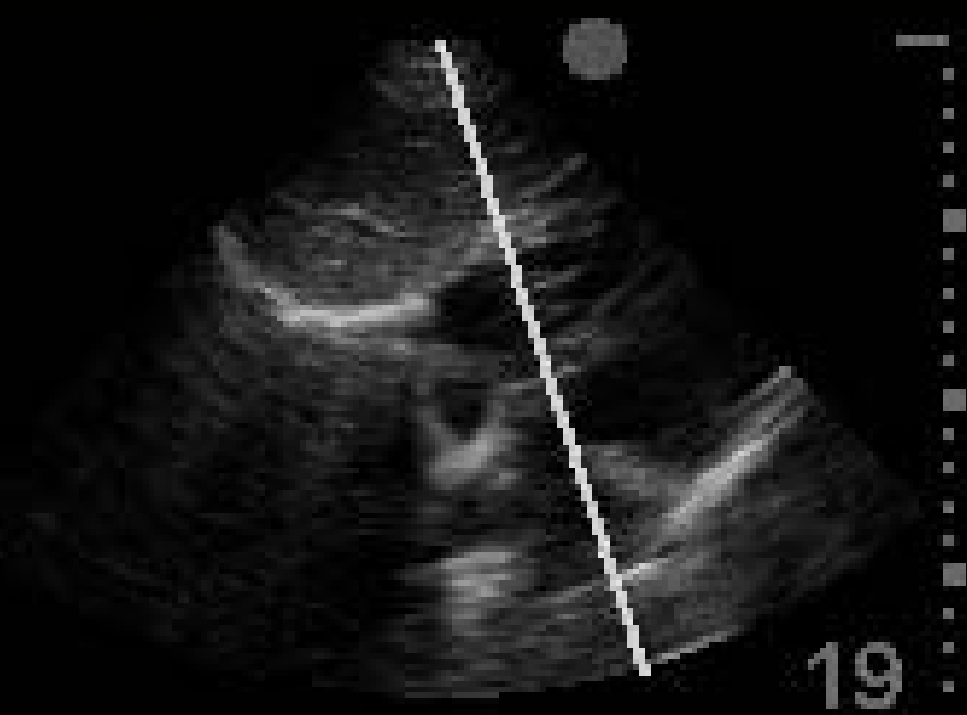
1.18cm

LVPWs : 1.18cm
RVWs: 1.18 RVDs: 3.26 IVSs: 0.96 LVDs: 4.07 LVPWs: 1.18

EMED

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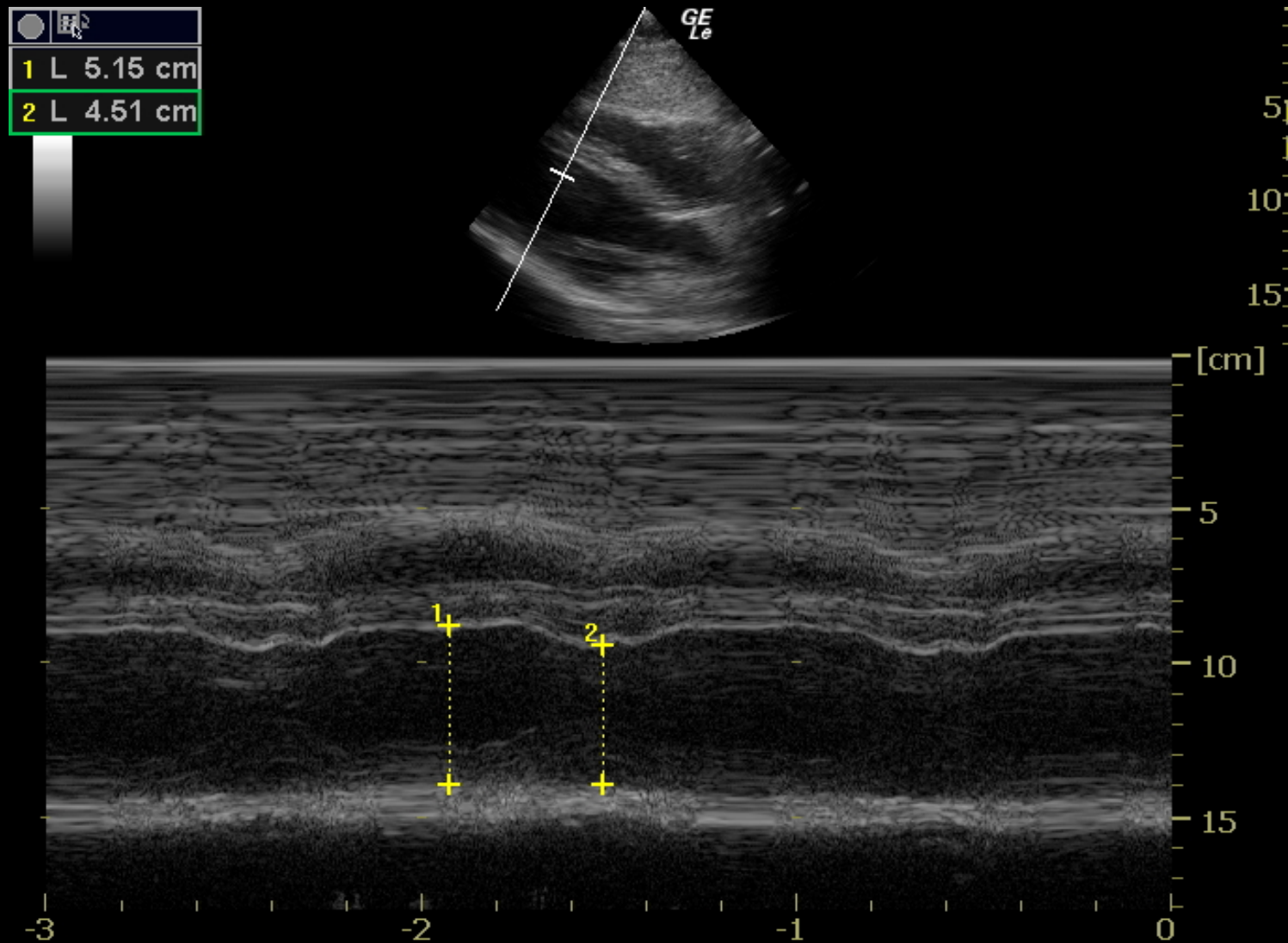
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1. Looks like LA, not LV
2. M-mode line not perpendicular



Operator said 'LV & RV appropriate relative sizes.'

What's the mistake?



Operator said 'LV & RV appropriate relative sizes.'

What's the mistake?

1. Image is round the wrong way! (subcostal long)
2. M-mode line placement correct for LV but not RV
3. But overall correct interpretation (B mode would've sufficed... don't get fancy!)

IF IN DOUBT...

Turn off the machine.