PP144

...WITH A LITTLE HELP FROM MY POCUS

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Introduction

- Point of care ultrasound (POCUS) has in recent years gained much popularity especially for its use in the Emergency Departments (ED).
- It's utility as a clinical diagnostic adjunct has assisted many front line physicians to improve their capability in providing accurate provisional diagnosis and care.
- The combination of sound clinical judgement and advanced medical sonographic technology has benefited both patients and clinicians alike.

Case summary

- We present to you an atypical case of pulmonary embolism in a 51-years old lady whose diagnosis was made possible with the use of POCUS.
- An unfortunate 51-years old lady with a background history of diabetes and hypertension has been in a dependant state for the past 1 year due to an ischemic stroke event. She presented to the ED with complaints of progressive generalised weakness, 1-week history of cough and an episode of syncope. She denied history of shortness of breath, chest pain or calf pain.
- Her findings were suggestive of sub-clinical orthostatic pneumonia with air entry reduction over the right lung base, mild tachypnoea with respiratory rate of 22, type 1 respiratory failure on arterial gases and borderline tachycardia. There were no other significant clinical findings noted. Her chest radiograph revealed clear lung fields with cardiomegaly. Bedside echocardiogram revealed a dilated right ventricle (RV), bowing of interventricular septum into left ventricle and a positive McConnell's sign.
- An immediate CT-Pulmonary Angiogram (CTPA) confirmed bilateral large pulmonary embolus with evidence of right heart strain despite having only a low to moderate Wells' criteria score.
- She was then admitted and treated for sub-massive pulmonary embolism. Her stay was uneventful and she was subsequently discharged home safely.

Discussion

- Initial clinical findings led us to the diagnosis of orthostatic pneumonia. However, the history of syncope appeared atypical and "strange" for the provisional diagnosis which prompt us to search for other probable causes.
- Bedside echocardiogram was then performed, revealed signs of right heart strain (RV dilation, Mc Connell's sign) which suggested the diagnosis of pulmonary embolism and it was confirmed by CTPA
- She was very fortunate to have a potentially lethal diagnosis not being missed, despite presenting to a constantly busy and "chaotic" ED environment.

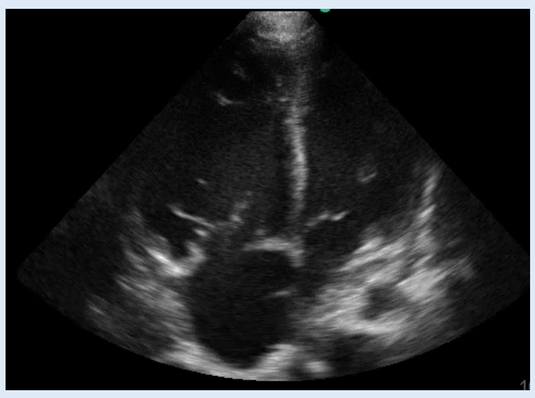

Figure 1: Apical four chamber view, Dilated right ventricle

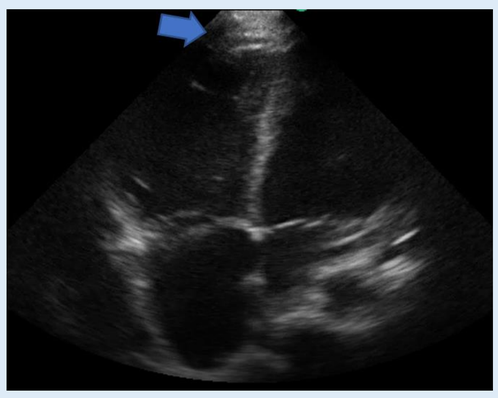

Figure 2: Apical four chamber view, McConnell's sign: Regional pattern of right ventricular dysfunction, with akinesia of the mid free wall and hypercontractility of the apical(blue arrow) wall

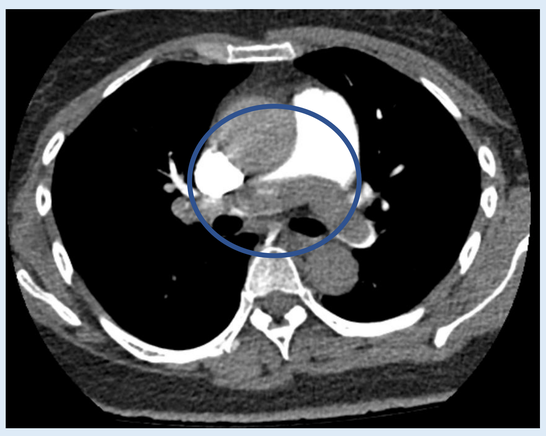

Figure 3: Axial view of CTPA, Filling defect shown by blue circle

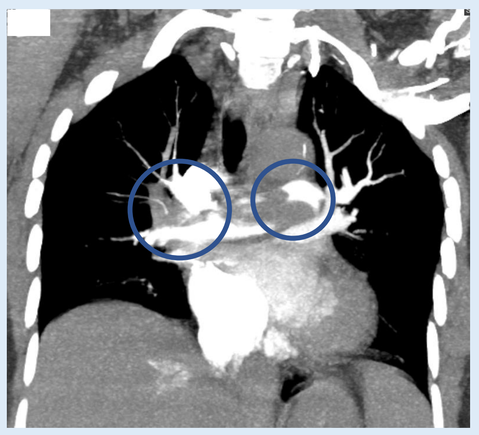

Figure 4: Coronal view of CTPA, Filling defect shown by blue circles

Conclusion

- Frontline care and management in an Emergency Department can be extremely challenging. Delayed or missed diagnosis will contribute adversely to patient outcomes.
- Combining the adjunct use of POCUS together with sound clinical judgement will greatly benefit the care of critically ill patients in the Emergency Department

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