

Left Sided McConnell's Sign: A Classic Finding in a Rare Condition

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Case Report

A 32 year old woman with a history of systemic lupus erythematosus (SLE) complicated by crescentic lupus nephritis and end stage renal failure on thrice weekly haemodialysis presented to the emergency department with breathlessness, chest pain and haemoptysis.

The ECG showed left ventricular hypertrophy and non-specific changes, chest X-ray demonstrated bilateral patchy infiltrates and cardiomegaly (Figure 1). White cell count was 13.7 K, CRP 2.1, Creatinine 8.6, BUN 46, K 4.6 and high sensitivity troponin elevated at 8.755 (ref < 0.03).

Echocardiography showed severe hypokinesis of the septum, anterior wall and basal inferior wall with an estimated ejection fraction of 40 % but preserved or even hyperkinetic apical function (Figure 1 & Videos 1 & 2). There was evidence of high filling pressures and pulmonary hypertension (Figure 2). Speckle tracking echo (STE) demonstrated preserved apical strain (figure 2) with markedly reduced strain in the basal segments.

A presumptive diagnosis of basal variant Taku tsubo cardiomyopathy was made, and the patient was admitted to the intensive care unit. She was treated by emergent haemodialysis and was commenced on betablockade in the form of Carvedilol. She demonstrated rapid clinical improvement. She declined invasive workup with coronary angiography. There were no significant serial EKG changes.

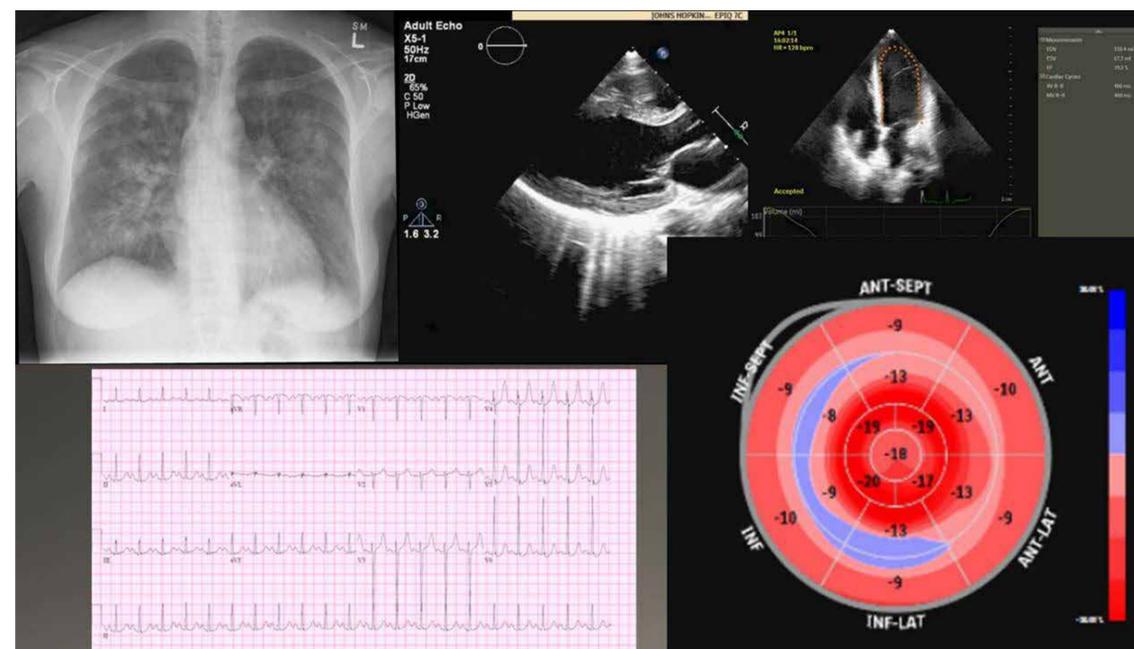
Repeat echocardiography was performed 48 h after presentation and demonstrated normalisation of LV systolic function as well marked improvement in diastolic parameters .Speckle tracking echo also showed marked improvement in comparison with the echo on presentation. At this stage, the patient insisted on discharge and has remained well at follow up. In retrospect, she admitted that she had become distraught with a work colleague during an argument immediately before her symptoms commenced.

Objectives

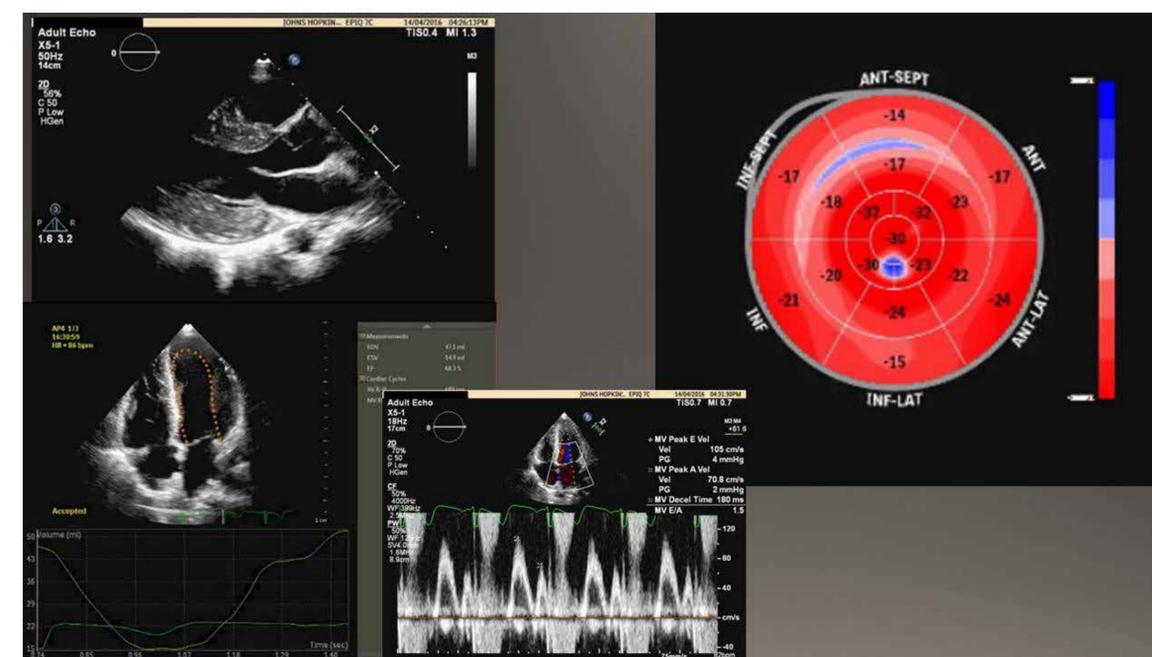
- Increase clinical awareness by publishing the case report to highlight this most unusual presentation of a rare variant of Taku Tsubo Cardiomyopathy in a female patient.
- Highlight advanced echocardiographic techniques especially Speckle Tracking and Strain imaging
- Propose a new term for this rare entity: "Left Sided McConnell's Sign"

Imaging Data

Initial X Ray, EKG and Echocardiography Findings



Follow up after 48 hours



Conclusion

McConnell's Sign is a specific finding in cases of acute pulmonary embolism. Mc Connell's Sign3 is defined as right ventricular free wall akinesis with sparing of RV apical contraction and is considered a specific echocardiographic finding in acute pulmonary embolism.

The presence of hyperkinetic motion of the basal and mid segments of the RV free wall with RV apical akinesis suggests right ventricular involvement in TTC. This finding has been suggested as "reverse McConnell's Sign."4 LV apical hyperkinesis with basal and midventricular hypokinesis could be considered a "Left Sided McConnell's Sign" and should suggest basal or midventricular variants of TTC.

References

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