

Renal Calculi and Reverse Takotsubo Cardiomyopathy- An Unexpected Association?

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Introduction

- Takotsubo cardiomyopathy (TTC) has been described as stress induced reversible cardiomyopathy with apical ballooning on cardiac imaging following a stressful trigger.
- However, basal hypokinesis with apical hyperkinesis on echocardiography- also known as reverse takotsubo cardiomyopathy (rTTC) has been reported relatively rarely (<3% of cases of TTC).
- We present the first case in literature that reports development of reverse takotsubo syndrome following diagnosis of renal calculi and renal colic.

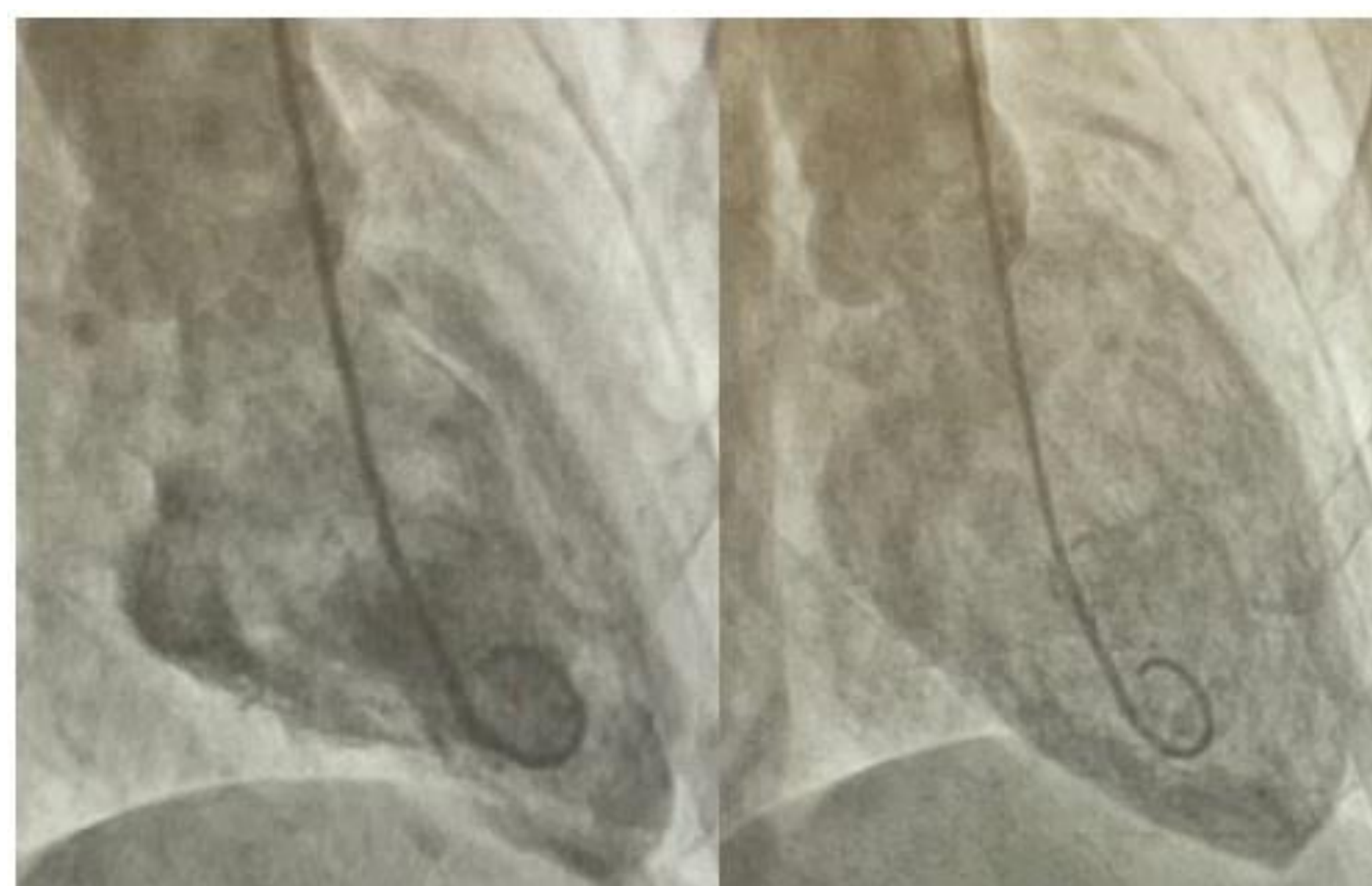
Imaging



Transthoracic Echocardiogram- Parasternal Long Axis View demonstrating basal hypokinesis.

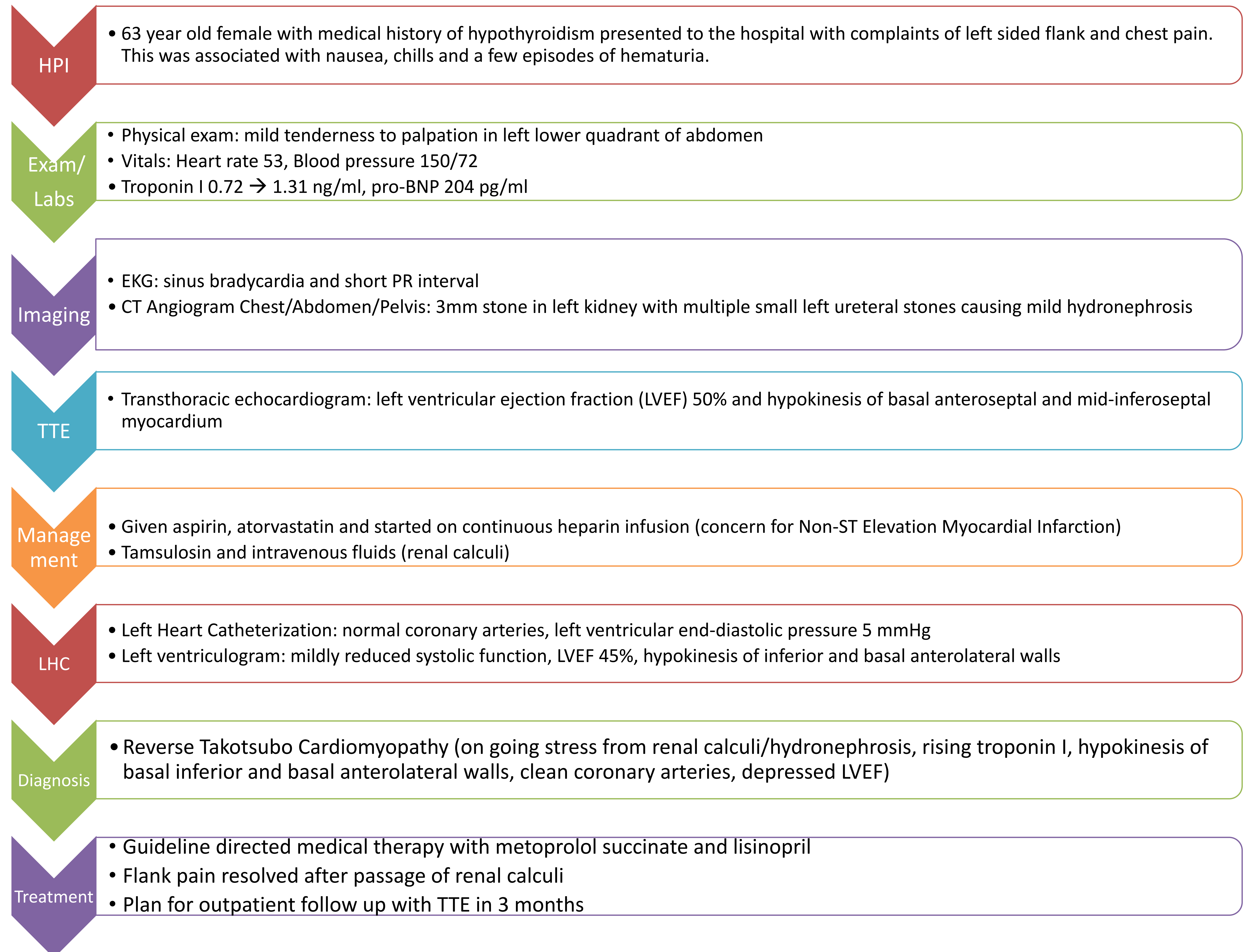


Transthoracic Echocardiogram- Apical Two Chamber View demonstrating basal hypokinesis.



Left ventriculogram demonstrating hypokinesis of basal inferior and basal anterolateral walls.

Case Presentation



Conclusion

- Reverse takotsubo cardiomyopathy has been described in literature to be triggered by emotional or physical stress likely due to catecholamine cardiotoxicity.
- Typically, rTTC is observed in young women with mean age of 36-years-old.
- Our case is unique because our patient is older and postmenopausal and it represents the impact of stress/pain secondary to renal stones leading up to rTTC.
- Timely echocardiography and left heart catheterization/ventriculogram are essential to aid in the diagnosis of this rare cardiomyopathy.