We present a case of a massive LV thrombus and highlight the dilemma of management of large LV thrombi.

Current treatment guidelines have not reached a consensus over optimal management of large LV thrombi. LV thrombi carry a risk of embolization of 1-3% [3].

INTRODUCTION

- Left ventricular (LV) thrombus may form after a myocardial infarction or in severe systolic dysfunction. The genesis is primarily dependent on stasis due to poor contractility in a regional area. [3]
- LV thrombi carry a risk of embolization of 1-3% [3]
- Current treatment guidelines have not reached a consensus over optimal management of large LV thrombi

CASE PRESENTATION

HPI: A 53-year-old man with history of non-ischemic cardiomyopathy (with prior LVEF 20%), hypertension, diabetes mellitus type 2 and mild chronic renal insufficiency presented to the emergency department (ED) after transient loss of consciousness leading to a motor vehicle accident. On presentation, he complained of peripheral vision loss and mild confusion; he denied headache, chest pain, shortness of breath, palpitations, nausea, vomiting, and focal weakness.

PHYSICAL EXAM:

VS: T:96.4 HR: 98 BP: 214/150 RR: 18 SpO2: 97% on ambient air
General: Alert and oriented to person but not place or time
HEENT: Pupils equal round reactive bilaterally. JVP 12 cm H20
CV: S1/S2 regular rate/rhythm. PMI laterally displaced to the axillary line
Pulm: clear air entry bilaterally
Abd: soft n/t nd +BS
Extremities: warm, well-perfused with 2+ pitting edema
Neuro: strength, sensation, and reflexes intact bilaterally. R sided dysdiadochokinesia

STUDIES:

- Laboratory – mild hyponatremia and mild renal insufficiency
- Electrocardiogram – Sinus tachycardia with rate 110 bpm; left anterior fascicular block, and evidence for prior inferior infarct.

We present a case of a massive LV thrombus and highlight the dilemma of optimal treatment and the potential for serious adverse sequelae.

FIGURE 1: Apical 2 chamber view by transthoracic echocardiogram revealing a 5.0 cm x 2.5 cm thrombus (arrow) in the left ventricle.

FIGURE 2: Resolution of the LV thrombus after embolization.

FIGURE 3: T2 MRI of right lower extremity showing an acute infarction of the popliteal, anterior tibial, tibipereoneal, and peroneal arteries from systemic embolization. (arrow)

FIGURE 4: DWI MRI showing an acute infarction of the left posterior cerebral artery. (arrow)

DISCUSSION

- Therapeutic anticoagulation is the standard treatment for thromboembolic disease and is suggested by the 2009 American College of Cardiology Foundation/American Heart Association guidelines for LV thrombus that has embolized [1].
- However, guidelines regarding the management of LV thrombus are not definitive for cases in which the mass is >5.0 cm; but it is maintained that with therapeutic anticoagulation, the majority of LV thrombi will resolve without evidence of systemic embolization [1].
- Surgical thrombectomy is indicated in patients with recurrent emboli despite therapeutic anticoagulation and in patients with additional indications for cardiac surgery.
- Despite anticoagulation at a therapeutic INR, our patient’s thrombus embolized multiple times.

The patient ultimately underwent right lower extremity above the knee amputation for critical limb ischemia. He was discharged to an inpatient rehabilitation facility after a prolonged hospitalization complicated by heart failure exacerbation, sepsis, and sustained altered mental status requiring conservatorship.

REFERENCES

3. Nemanich KA. Fate of Left Ventricular Thrombi in Patients with Remote Myocardial Infarction or Idiopathic Cardiomyopathy. /CA-1: 235-59