Cardiac Tamponade after Thrombectomy

Pulmonary embolism (PE) is the third leading cause of cardiovascular mortality which require prompt diagnosis and management. Percutaneous mechanical thrombectomy has a success rate of over 80% and is indicated in patients with contraindications to thrombolysis. However, there are potential complications such as risk of bleeding, atrial or ventricular perforation causing tamponade. We attempt to describe one such case of pericardial tamponade in an elderly woman who underwent thrombectomy for acute saddle PE. Description: 88 year old elderly woman with hypertension presented with acute shortness of breath and chest discomfort. Vitals significant for heart rate of 108 bpm and O2 saturation 80% on room air and blood pressure of 95/57 mmHg. Bedside ultrasound showed a dilated right ventricle with D sign. Labs with elevated troponin of 0.135 ng/mL and pro-BNP 59256 pg/mL and EKG with S1, Q3, T3. Chest CT angiogram revealed saddle PE extending into main pulmonary arteries with right heart strain. Given patient’s hemodynamic instability, advanced therapy with tPA or thrombectomy was warranted; however, tPA was deferred given patient’s age. Patient was started on anticoagulation and Interventional radiology was consulted. Patient then underwent a pulmonary arteriogram with successful percutaneous thrombectomy using a FlowTreiver device. But two hours post-procedure, she complained of severe back pain and was hypotensive to 88/63mmHg with a substantial drop in hemoglobin from 13.7g/dL to 8.8g/dL. Emergent CT angiogram was performed which showed dense pericardial effusion, likely hemopericardium, with mass effect on the heart. Bedside pericardiocentesis was attempted as a temporizing maneuver before proceeding to the operating room, which was then converted to pericardial window given sustained hypotension but patient went into cardiac arrest.