A DAY OF FIGHTING FATE: BIVENTRICULAR FAILURE WITH LEFT VENTRICULAR THROMBUS ON INTRA-AORTIC BALLOON PUMP COMPLICATED BY EMBOLIZATION.

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Case Vignette

CASE:

A 67-year-old lady with no past medical history presented with 3 weeks of progressively worsening shortness of breath and cough. She developed leg swelling and cyanotic toes 2 days prior to presentation. She was found to be in newly discovered atrial fibrillation with a rapid ventricular response. An echocardiogram showed biventricular failure with an ejection fraction of 10-15% with a large left ventricular(LV) thrombus measuring 4 x 2 cm. An emergent left heart catheterization showed clean coronaries and a right heart catheterization showed a cardiac index of 1.2 and elevated wedge pressure consistent with cardiogenic shock. The patient was given intravenous lasix and started on milrinone, levophed, heparin, and an intra-aortic balloon pump was inserted.

About an hour later, she reported acute onset chest pain, with loss of sensation in her bilateral lower extremities. At that time, femoral pulses were no longer palpable and bedside echocardiogram demonstrated an absence of previously seen left ventricular thrombus. The presentation was concerning for an acute aortic occlusion secondary to embolized left ventricular thrombus. She was emergently taken to the operating room for a diagnostic aortogram as well as bilateral common femoral artery Fogerty embolectomies and removal of intra-aortic balloon pump. The patient developed multi-organ failure with altered mentation that required intubation, along with persistent ST elevation and tachycardia from which she succumbed.

DISCUSSION:

The use of IABP (Intra-Aortic Balloon Pump) in cardiogenic shock with biventricular failure is well versed in the literature. However, its use in patients with LV thrombus is not well studied. Common complications of IABP include reversible limb ischemia, balloon leak, and hemorrhage. Major vascular complications such as leg amputation due to ischemia from IABP itself are rare. There has been one case report demonstrating a change in the shape of a left ventricular mural thrombus after placing an IABP.

To our knowledge, our case is the first to demonstrate IABP potentially accelerating the thromboembolic phenomenon. This suggests physicians should be cautious in placing IABP in patients with LV thrombus thereby preventing catastrophic consequences.