Abstract: 

**Bilateral pheochromocytoma presenting with inverted takotsubo cardiomyopathy and cardiogenic shock**

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**Topic(s):**
Acute Heart Failure: Non-pharmacological Treatment

**Citation:**
Takotsubo cardiomyopathy show transient left ventricular dysfunction and rarely presents with cardiogenic shock. Basal or inverted takotsubo cardiomyopathy is a variant of this syndrome important to identify because it tends not to be recognized as readily as the typical presentation and is associated with the presence of Pheochromocytoma.

Pheochromocytoma is a rare, catecholamine-secreting neuroendocrine tumour arising from the adrenal medulla. Recent studies have focused on estimation of the prevalence of Takotsubo cardiomyopathy in patients with pheochromocytoma but very little is reported about the management of these complex cases. Here, we report the case of a 26-year-old woman who presented with an inverted Takotsubo cardiomyopathy (picture 1) secondary to a catecholamine crisis, caused by an occult bilateral pheochromocytoma. The initial presenting crisis manifested with symptoms of severe headache, palpitations and breathlessness triggered by surgery procedure and exogenous corticosteroid. In the emergency department, the patient clinical condition rapidly deteriorated, developing respiratory failure and cardiogenic shock and she was transferred to a VA-ECMO support center, which in this case was life-saving therapy, allowing myocardial recovery, and stabilization for tumors excision.

Pheochromocytoma should systematically be considered for patients with Takotsubo cardiomyopathy, and/or unexplained cardiogenic shock. Extracorporeal life support devices provide temporary mechanical circulatory support in patients on refractory cardiogenic shock who have an underlying potentially reversible heart condition, like Takotsubo cardiomyopathy.
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Picture 1: Admission echocardiography showing subcostal view of the LV at end-diastole (A), and end-systole (B).