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FIT Clinical Decision Making

EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO) AS BRIDGE-TO-SURGERY FOR INFECTIVE ENDOCARDITIS

Poster Contributions

Hall C

Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: FIT Clinical Decision Making: Heart Failure / Cardiomyopathies

Abstract Category: Heart Failure and Cardiomyopathies

Presentation Number: 1172-06

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Background: Timing of surgery for active infective endocarditis is challenging in patients with mechanical dysfunction and hemodynamic compromise. ECMO has been described in sepsis but is not reported with acute mechanical complication from endocarditis.

Case: A 35-year-old man presented with *Streptococcus viridans* endocarditis. Transesophageal echocardiography showed severe aortic and mitral insufficiency with vegetations, a PFO and a fistula from the aortic root to left atrium (Figure). Antibiotics were initiated and surgery was deferred for sterilization of blood cultures.

Decision-making: While awaiting surgery the patient acutely decompensated with refractory cardiogenic shock and hypoxemia despite mechanical ventilation, inotropes and pressers. Percutaneous Femoral-Femoral Veno-Arterial ECMO was initiated to stabilize the patient with subsequent stability of vital signs and clearance of lactate; however, due to the fistula and valvular insufficiency, pulmonary edema remained. 8-hours later, the patient underwent an uneventful surgical repair including fistula closure. The patient came out of the OR without ECMO and the post-operative course was uneventful.

Conclusion: This case demonstrates the utility of ECMO as a bridge to definitive treatment in patients with endocarditis complicated by fistula/ acute valvular insufficiency and consequent refractory pulmonary edema. Short term ECMO is useful for mechanical complications of endocarditis in a select population.

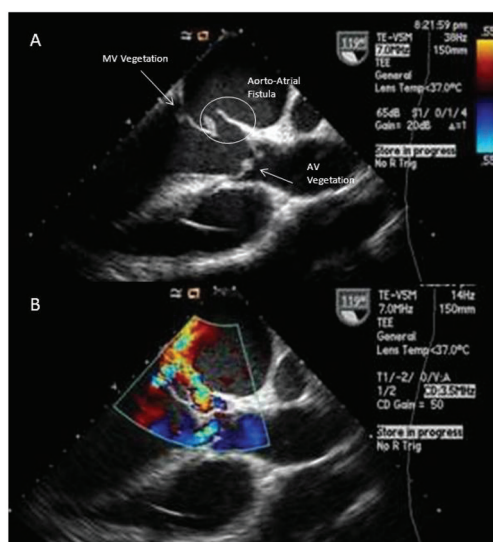


Figure: (A) TEE demonstrating Aorto-Left Atrial fistula, vegetation on Mitral and Aortic Valves (B) Color doppler