

A CASE OF SUCCESSFUL RECOVERY FROM SEVERE PERIPARTUM CARDIOMYOPATHY BY USING EXTRA CORPOREAL PERCUTANEOUS INTRA-AORTIC BALLOON PUMP (IABP)

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Introduction: Peri-partum cardiomyopathy (PPCM) is rare form of dilated cardiomyopathy, occurs in later part of pregnancy and early postpartum. Incident rate is around 1 in 2000 pregnancies. It carries higher maternal morbidity and mortality. Most of the time etiology is unknown. Current hypothesis are cardio tropic viruses, autoimmunity, immune dysfunction and hyperprolactinemia causing cardiac myocytes damage.

Case: A 36 year old mother in her Second pregnancy with present and past history of Pregnancy induced hypertension (PIH), admitted at 34 weeks due to Pre-eclampsia (PE) with high uric acid level. She was on Aspirin and Nifedipine. Emergency Caesarean section (CS) was performed and post-operative intensive care (ICU) given. Following day she developed sudden onset Shortness of breath and lower limb oedema with low SPO₂. Peri-partum cardiomyopathy (PPCM) diagnosed by 2-D Echocardiogram with ejection fraction (EF) of 15%. Patient was ventilated and ionotropes has been started. Her condition was being worsening due to multi-organ failure. Percutaneous intra-aortic balloon pump (IABP) was inserted following Multi-disciplinary (MDT) meeting. Post-op day 8, she developed acute left lower limb ischemia due to thromboembolism despite continuous heparin infusion. She had undergone above knee amputation. Following 14 days of ICU treatment, her ejection fraction improved to 50% and discharged from the ICU.

Discussion: Importance of early diagnosis and treatment could save the mother with PPCM. Primary treatment is beta blockers, diuretics and supportive management. In severe cases it carries 20% mortality rate and may need cardiac transplant or external cardiac devices.

IABP is a mechanical device which introduces through the femoral artery and sits in the aorta 2cm below the left subclavian artery and above the renal arteries. It inflates during diastole that increases myocardial perfusion, reduces after load and improves the ejection fraction. It is commonly use in cardiogenic shock during myocardial infarction and cardiothoracic surgery. IABP has a place in management of patient with cardiomyopathy, after considering morbid complications. Arterial thrombosis in lower limb leads to ischemia is common complication. It can be prevented with anticoagulation and inspection of limbs during pump in-situ. Other common complication is blockage of renal arteries by balloon which causing acute kidney failure.

Conclusion: Apart from traditional pharmacological managements, when comparing advantages and disadvantages IABP is a lifesaving option to deal with severe cases of PPCM. Arterial thrombosis and mechanical obstruction are common complications with IABP. Vigilant monitoring and prophylactic anticoagulation would prevent associated complications.