Peripartum cardiomyopathy

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1 Peripartum cardiomyopathy (PPCM) presents with symptoms of heart failure, including dyspnea, orthopnea and pedal edema

Peripartum cardiomyopathy is defined as heart failure with a left ventricular ejection fraction (LVEF) below 45%, in which symptoms begin in the last month of pregnancy and up to 5 months postpartum in an individual without pre-existing heart disease.[1,2] Patients with progressive or severe heart failure, angina or arrhythmia (seen in about 20% of patients) require urgent investigation and referral to a cardiologist.[1,3]

2 Echocardiography is critical for the diagnosis of PPCM and to exclude alternate causes of cardiac dysfunction

Echocardiography is the gold standard for quantification of LVEF, and may show left ventricular thrombus, which is caused by pregnancy-related hypercoagulability and left ventricular hypokinesis.[3]

3 Patients should be treated for heart failure with reduced LVEF, with important differences specific to pregnancy

Diuretics, β-blockers, hydralazine, nitrates and digoxin are safe in pregnancy and should be used in the treatment of PPCM.[3] Angiotensin-converting enzyme inhibitors and angiotensin receptor blockers are teratogenic and are contraindicated in pregnancy.[3] Given the high prevalence of left ventricular thrombus (10%–17%), low molecular weight heparin may be considered during late pregnancy and for up to 6–8 weeks postpartum when the LVEF is below 30%–35%.[3]

4 PPCM is associated with substantial morbidity and death

Up to half of patients with PPCM will have residual left ventricular dysfunction.[2,3] If recovery occurs, the LVEF will normalize to greater than 50%, often within 3–6 months of diagnosis.[3] Estimates of long-term (> 5 yr) mortality rates range from 7% to 20% in the United States.[3]

5 Patients with a history of PPCM who become pregnant require urgent referral to an obstetrician and a cardiologist

Future pregnancy is not recommended if the LVEF does not recover to greater than 50%–55%, as there is a 25%–50% chance of maternal death.[4,5] Even if complete recovery is achieved, a 20% risk of relapse exists with subsequent pregnancy, which should be considered high risk.[4]

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