

Peripartum Cardiomyopathy

The Clinical Nurse Specialist Role in
Optimizing Care for this Complex
Population

Peripartum Cardiomyopathy

- Identify management strategies for peripartum cardiomyopathy
- Discuss the value of the clinical nurse specialist's involvement in providing holistic care for patients with complex needs, such as peripartum cardiomyopathy (PPCM)

Peripartum Cardiomyopathy

- Cardiac failure in the last month of pregnancy or within five months of delivery
- Death from cardiomyopathy in the United States increased more than 2-fold from 3% to 7.7% from 1984 to 1997
 - Exact etiology is unclear
 - Risk factors: African American race, multiparity, advanced maternal age, obesity, multiple gestation, cocaine use, preeclampsia

Peripartum Cardiomyopathy

- Early diagnosis is often missed or delayed
 - Profound physiologic adaptations of pregnancy
 - Blood volume and HR increases > increased CO of 40-50% (3rd trimester)
 - Significant overlap of symptoms (heart failure and pregnancy)
 - Fatigue, dyspnea, fluid retention
 - Low incidence of PPCM occurrence

Peripartum Cardiomyopathy

- Treatment is aimed at reducing afterload and preload and increasing contractility of heart
 - Prevent/treat complications
- Non-pharmacologic therapy
 - Na restriction
 - Daily weights and BPs
 - Limited fluid intake
 - Heart failure stoplight assessment

Peripartum Cardiomyopathy

- Pharmacologic therapy
 - Choice of medication is dependent on whether or not the patient is pregnant or breastfeeding
 - Vasodilators
 - Beta blockers
 - Diuretics
 - Digitalis
 - Spironolactone
 - Anticoagulants
 - Antiarrhythmics

Peripartum Cardiomyopathy

- Intra/Postpartum care
 - Goal: maintain oxygen delivery sufficient to meet increased maternal and fetal demands associated with labor and delivery
 - Vaginal birth with epidural
 - Antibiotic prophylaxis for subacute endocarditis
 - Continuous cardiac monitoring
 - Close fetal monitoring
 - Interventions to reduce preload postpartum

Peripartum Cardiomyopathy

- Clinical course of peripartum cardiomyopathy (PPCM) is variable
 - 30% - 50%: some degree of persistent cardiac dysfunction
 - 20% striking fulminant course requiring transplantation
- Breastfeeding is encouraged
 - Positively impacts left ventricle recovery
- Birth control

Peripartum Cardiomyopathy

- Ejection fraction is the strongest predictor of outcome
 - Time to recovery plays important role in predicting long term outcome
- Future pregnancy
 - Left ventricle function is most reliable predictor of subsequent pregnancy safety

Care of the patient with PPCM

- Care of the pregnant and postpartum patient with PPCM presents unique nursing challenges
 - Requires a depth and breadth of knowledge and skill in both perinatal and cardiology fields to provide care throughout the prenatal and postnatal continuum of care
 - Advanced practice nurse consultation and collaboration is essential

Role of the Clinical Nurse Specialist

- Formal needs assessment
 - 98.7% responded that they did not have adequate knowledge, skills or critical judgment to confidently care for a woman with PPCM
 - 15 point assessment tool guided education
 - Safe medication use
 - Impact of CV med on pregnant woman/fetus
 - Impact of CV disease on pregnant woman/fetus
 - Impact of pregnancy on CV disease
 - Birth control options for woman with CV disease
 - Impact of CV disease on future childbearing
 - CV and OB APN resources

Role of the Clinical Nurse Specialist

- Resource Development
 - Nursing Management Guideline for the Pregnant & Postpartum Patient with PPCM
 - Guideline of assessments, independent and collaborative interventions, surveillance and notification parameters
 - Pregnancy-specific Heart Failure Stoplight
 - Safety Profile of Select Medications During Pregnancy and Lactation

Role of the Clinical Nurse Specialist

- Nursing Education
 - Physiologic adaptations of pregnancy
 - Etiology
 - Risk factors
 - Signs/symptoms
 - Diagnosis
 - Management regime
 - Complications
 - Breastfeeding considerations
 - Prognosis
 - Birth control options
 - Future pregnancy risk

Role of the Clinical Nurse Specialist

- Nursing Education provided
 - Pre-test mean 50.7% (range 30% - 80%)
 - Post-test mean 95.3% (range 90% - 100%)
 - 100% scored >85%
- Consulted for all patients with PPCM
 - Education on safe medication use in pregnancy/lactation and birth control options
 - Reinforce education on disease management

Role of the Clinical Nurse Specialist

- Open lines of communication, consultation, collaboration between heart failure nurses and perinatal CNS
 - Positive outcomes for breastfeeding women
 - Some told to stop breastfeeding
 - Some prescribed medications contraindicated in lactation
 - Some had issues with supply
 - Safe birth control options

In Summary

- Diagnosis of peripartum cardiomyopathy is frightening, unexpected, overwhelming
- Mother must now learn to manage not only the stressors of pregnancy or new motherhood, but also the stressors of this disease
- Requires multi-tiered level of support best facilitated by the clinical nurse specialist
