HYPERTROPHIC CARDIOMYOPATHY IN PREGNANCY: MATERNAL AND FETAL OUTCOMES AND CONSIDERATIONS.

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**Background:** Women with severe Hypertrophic Cardiomyopathy (HCM) can successfully undergo pregnancy without significant maternal or fetal complications. The optimal management strategies however still remain fairly unknown.

**Aims:** The purpose of this study is to evaluate both maternal and fetal outcomes in women with HCM during pregnancy, labor and delivery and to clarify a management strategy that minimizes the adverse effects on both the mother and fetus. **Methods:** A database review of all women seen in the Department of Maternal/Fetal Cardiology from 1989-2005 was used to identify women with severe HCM defined as asymmetric septal hypertrophy ≥1.5cm by echo. Chart review was used to evaluate for progression of maternal disease as evidenced by cardiac deterioration (increased arrhythmias or hemodynamic compromise), maternal or fetal mortality, and fetal outcome. The management of these women during pregnancy, labor, and delivery was reviewed. **Results:** Thirteen women (16 pregnancies) with severe HCM were identified. Maternal echos were performed in all women at 20 and 30 weeks gestation and at 6 weeks postpartum. Fetal echos were obtained between 18-30 weeks gestation. Maternal echos demonstrated a median septal wall thickness of 2.3 cm (range 1.6-4.6 cm) and a mean predicted Doppler gradient in the left ventricular outflow tract of 37 mmHg (0-60 mmHg). There was no change on postpartum follow-up. Heart rate and/or rhythm control was achieved in most cases with Atenolol or Verapamil. One patient required intra-partum Esmolol. Holter monitoring revealed non-sustained ventricular tachycardia (VT) in 3/12 women. All women delivered in a perinatal special care unit with continuous monitoring of blood pressure and heart rate. CVP use was instituted early in the clinical experience however, over time was found to be unnecessary. All but one woman underwent assisted vaginal deliveries with a shortened 2nd stage of labor. There was one C-section. One infant of a diabetic mother had hypoglycemia. There were no other fetal or neonatal complications. Maternal complications included pulmonary edema, non-sustained VT and hypotension. There were no maternal or fetal deaths. **Conclusions:** Women with severe HCM can undergo successful pregnancy and delivery without significant complications or increased risk to the fetus. They are best managed in a high-risk center using a multidisciplinary team approach.