

# CARDIOVASCULAR DISEASE DURING LABOR, DELIVERY AND POSTPARTUM

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## **The AHA/ACC have classified the following lesions as high maternal or fetal risk**

Congenital heart disease:

- Prior Fontan procedure
- Severe PAH
- Cyanotic CHD
- Complex CHD with residua such as heart failure, valve disease, or the need for anticoagulation
- CHD with malignant arrhythmias

## **The AHA/ACC have classified the following lesions as high maternal or fetal risk**

Valvular heart disease:

- Severe aortic stenosis with or without symptoms
- Mitral stenosis with NYHA class II to IV symptoms
- Aortic or mitral regurgitation with NYHA class III to IV symptoms

## **The AHA/ACC have classified the following lesions as high maternal or fetal risk**

Valvular heart disease:

- Aortic and/or mitral valve disease with severe left ventricular dysfunction or severe pulmonary hypertension
- Marfan syndrome
- Mechanical prosthetic valve



# Route of delivery

- Planned. Vaginal delivery
- Cesarean delivery:
  - Aortopathy
  - Severe pulmonary hypertension (Eisenmenger syndrome)
  - Warfarin treatment within one to two weeks before delivery





# Labor

- ❖ Semirecumbent position with a lateral tilt
- ❖ Induction of labor
- ❖ Scheduling induction
- ❖ Cervical ripening with Foley catheter or misoprostol, amniotomy
- ❖ Mechanical methods are preferable in the patient with cyanosis

# Labor

- Misoprostol
  - ✓ theoretical risk of coronary vasospasm
  - ✓ low risk of arrhythmias
  - Vaginal "cardiac delivery"
    - a. fetal descent by uterine contractions without maternal expulsive efforts
    - b. a low or outlet operative vaginal delivery

# Labor

- Neuraxial analgesia is generally required
- hemodynamic monitoring
- Transcutaneous fingertip oximetry
- Fetal monitoring



# Endocarditis prophylaxis

- Not recommended in most women with CHD
- Antibiotic prophylaxis at the time of membrane rupture:
  - ❖ completely repaired CHD with prosthetic material or device during the first six months after the procedure

# Endocarditis prophylaxis

- ❖ unrepaired cyanotic congenital heart disease [including those with palliative shunts and conduits]
- ❖ repaired congenital heart disease with residual defects at the site or adjacent to the site of the prosthetic device, or prosthetic heart valves)



# Postpartum care

- Intravenous oxytocin, infused slowly (less than 2 U/min)
- Methergine is contraindicated (Vasoconstriction and HTN >10 percent)
- Meticulous leg care
- Elastic support stockings
- Early ambulation



# Postpartum care

- Hemodynamic monitoring for 12 to 24 hours after delivery
- Monitoring early (6 to 10 weeks) and late(4 to 6 months)

Thank You

