

# Mitral Valve Prolapse: Anesthetic Considerations

**Anesthetic Pearls:** Anesthetic Implications and Management of Mitral Valve Prolapse

- Also known as Barlow's disease.
- Most common concerns are preventing bacterial endocarditis and perioperative cardiac dysrhythmias, but occasionally more serious problems may occur.

**Epidemiology:** More common in women (as high as 5% of the female population)

**Causation:**

- a. Defects of the mitral valve that allow prolapsing back into the atrium during systole
  - b. Progressive annular dilation
  - c. Weakened chordae may eventually rupture creating severe mitral regurgitation.
- Valvular abnormalities may lead to embolic phenomena and occasionally CVA's.

**Preoperative Assessment:** Attention to cardiac symptoms such as chest pain, dyspnea and other signs of CHF and arrhythmias. Ideally baseline ECHO and EKG should be obtained unless the symptoms are minimal.

**Antibiotic Prophylaxis:**

The American Heart Association no longer recommends routine antibiotics before dental procedures except for patients at the highest level of risk for bacterial endocarditis, such as patients with a prosthetic cardiac valve, patients who have had bacterial endocarditis before, or patients with specific types of congenital heart disease. Also, the AHA no longer recommends routine antibiotics to prevent bacterial endocarditis in patients undergoing procedures of the gastrointestinal or genitourinary tract.

**Dosage for high risk individuals:** Ampicillin 2 grams IV 30 minutes before the procedure. If GI or GU procedures are done, Ampicillin should be given as well as gram-negative coverage with Gentamicin 1.5 mg/kg. All these antibiotic routines should be followed up with postoperative antibiotics for at least one dosage as well.

**Intraoperative Management:** Generally routine and based on the severity of the findings. Hypertension and sympathetic stimulation should be avoided to reduce the likelihood of arrhythmias and increasing the regurgitant fraction through the mitral valve.

**Monitoring:** Invasive monitors are typically not needed unless severe mitral regurg or CHF is present.