Basic Principles of Mitral Valve Repair in the Young
Basic Principles of Mitral Valve Repair in the Young

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No disclosures
Congenital Mitral Disease: 
Classification

Pathologic and Functional Assessment

- **Annulus** – small vs. restricted
  - Supra intra-annular fibro-elastic ring

- **Leaflets**
  - Restricted mobility:
    - Intra-leaflet thickening vs. deficiency
  - Hypermobility (prolapse):
    - Excess tissue vs. chordal elongation or lack of chordal support
  - Leaflet defects: clefts

- **Sub-valve restriction**
  - Excess fibro-elastic tissue (thickening)
  - Short or matted chords
  - Excess chords/papillary attachments (tethering)
Approach: mini-sternotomy
Trans-septal approach:
Atriectomy
Trans-septal approach:
Septostomy
Exposure and Inspection
Congenital Mitral Stenosis
Removal of fibro-elastic tissue: annulus and leaflets
Sub-valvar obstruction
Sub-valvar restriction

- Fibro-elastic tissue
- Short or matted chords
- Excess chords/papillary attachments (tethering)
Congenital Mitral Regurgitation

Anterior mitral cleft
Common AV valve regurgitation
Cleft closure
Pericardial patch augmentation
Posterior leaflet patch water test
Boston Children’s Experience
(Jan 2008 to June 2018)

Tricuspid Valve Repairs
N=874

Mitral Valve Repairs
N=902
Survival
Freedom from Reintervention or Replacement

Reintervention

Replacement

Freedom from Reoperation

Time

Freedom from Replacement

Time

MS
MR
MS/MR

MS
MR
MS/MR
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