

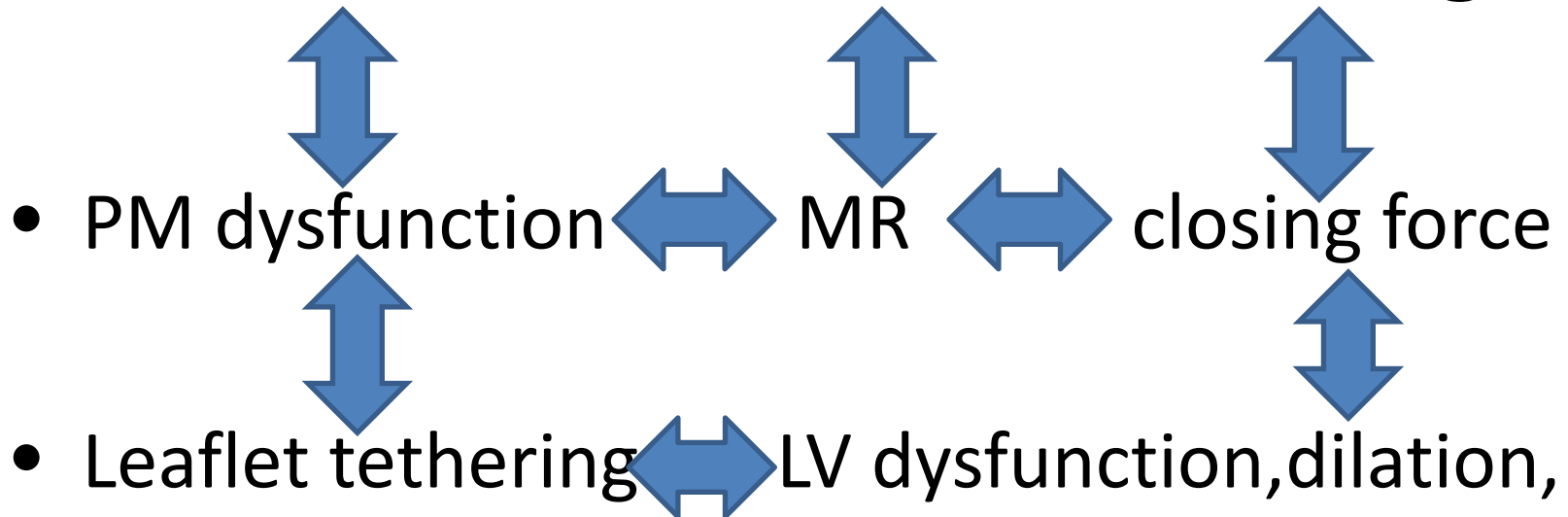
Functional MR : Repair or Replace?

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Definition FMR

- **“MR without structural damage to leaflets, chordae, papillary muscle; occurrence of remodelling process of ventriculo-mitral unit”**

Annular dilatation/flattening



- Free wall kinetic abnormalities

2 Type of FMR

- **Ischemic MR (IMR)**
- **Non- Ischemic MR(n IMR)**

Pathophysiology

- A.annular dilatation and flattening-dynamic,not determine by LV dilation,loss of “saddle shape”,ventricular dysfunction
- B.papillary muscle dysfunction-LV/PM systolic dyssynchrony,PM displacement,LV wall dysfunction,3D LV geometry changing

Treatment FMR

- **1. pharmacological therapy**
- **2. CRT**
- **3. Percutaneous intervention/cardiac support devices(CSD)**
- **4.MV surgery**

CSD

- “external restraint devices”
- Function – relocate PM displacement, decrease LV dilation, decrease FMR
- Devices – Acorn CSD, Myosplint device, Coapsys

MV Repair in FMR

- 1995 Bolling – restrictive MVA : recurrent 30%
- 2002 Kron – PM relocation
- 2007 Roma – PM approximation
- Fumimoto – PM realignment
- 2008 Arai – mitral complex procedure
- Other – chordal cutting, chordal reimplantation, surgical ventricular restoration(SVR)

SVR

- **Septo-anterior ventricular exclusion(SAVE)**
- **Batista operation**
- **Infarct plication**
- **Dor procedure**

Moderate MR should repair or not?

- 2014 Smith et al
- RCT study with 1 year FU
- **“No significant difference regarding reversal of LV remodeling at 12 month between CABG alone and CABG plus annuloplasty.”**

MV repair VS replace

- **Superiority is controversial.**
- **Replacement is low incident of valve-related complication.**
- **No difference in long term survival/LV function.**
- **Repair is lower hospital mortality.**

Conclusion

- Choice of repair or replacement in FMR depends on the predictors of recurrence and the thromboembolic risk of each patient.
- Replacement provides more durable treatment and effects on long term outcomes despite the prosthetic valve- related complication.



THANK YOU