

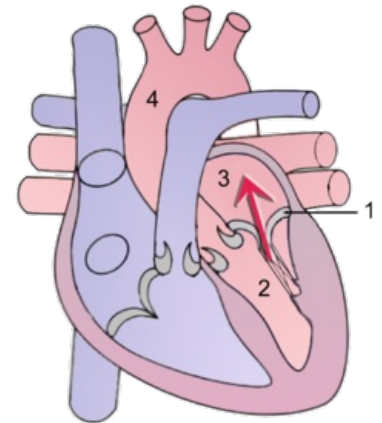
Mitral insufficiency

The cause of **mitral insufficiency** (MI) is *mitral regurgitation*.

The causes of MI include:

- abnormalities of flaps (prolapse of mitral valve, infectious endocarditis),
- abnormalities of mitral ring (dilation, calcification),
- abnormalities of tendons (degeneration, ruptures),
- abnormalities of papillary muscles (ruptures).

Mitral regurgitation is also accompanied by *mitral prolapse* (can be inborne – Barlow syndrome, in Marfan syndrome, Ehlers-Danlos syndrome or acquired secondarily), the cause of acute insufficiency is usually a rupture of the papillary muscle in heart attack or valve damage infectious endocarditis.

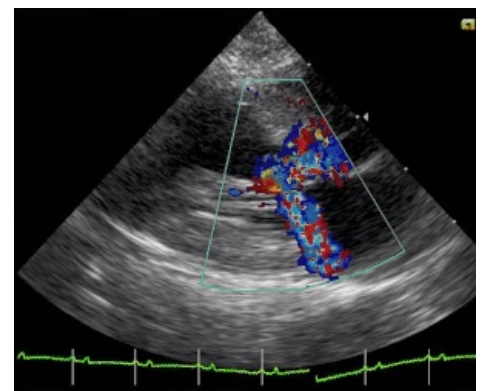


Patophysiology of MI

- LV pumps the blood to LA (regurgitation fraction), which decreases the systolic output of the LV - LV must hypertrophy to stabilise (eccentric hypertrophy) –systolic dysfunction occurs in LV and heart failure. As a result of pulmonary venostasis, exertional dyspnea to cardiac pulmonary edema occurs.

Diagnostics MI

1. **Physical findings:**
 - dilation of a heart shadow (LV to the left, apex down and laterally),
 - congestion on the lungs (crackles),
 - auscultation: **holosystolic murmur in apex with pormotion into the armpit**, hearable on the left side, S3 gallop, gallopezosystolic click,
 - marks of the R heart failure: edema, elevated JVP, hepato- a splenomegaly, nocturia, flatulence, anorexia,ascites at a late stage,
2. **RTG** - cardiomegaly,
3. **echocardiography** - regurgitation from LV to LA in systole.

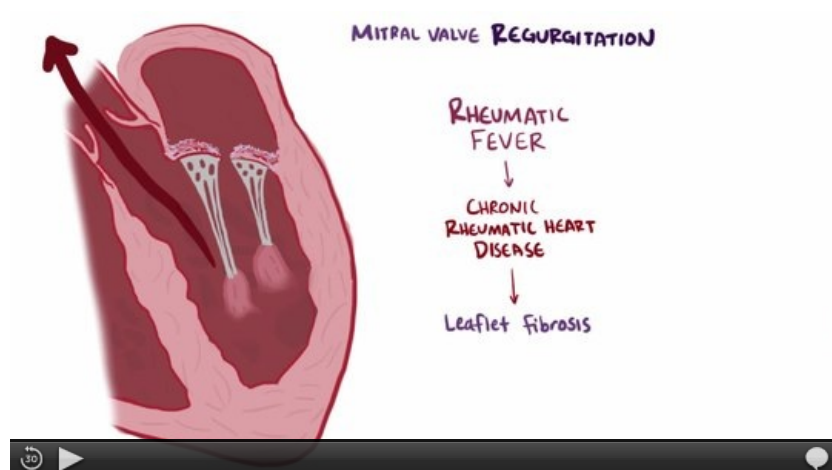


Therapy

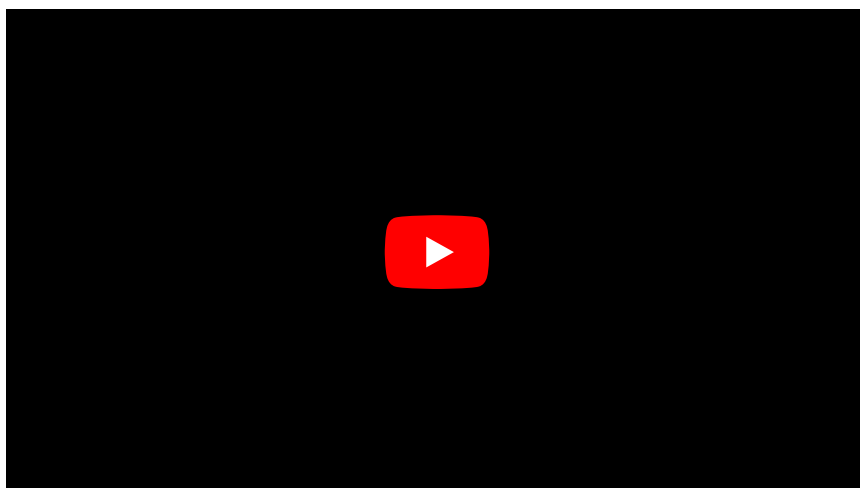
- Surgical:
 - effort to surgically save the valve- **anuloplasty, valvuloplasty** mitral valve,
 - **valve replacement** with preserved hanging apparatus,
 - every symptomaic patien is indicated to (if the ejection fraction doesn't go below 30 %), we an only observe patients who:
 - have ejection fraction over 60 %,
 - don't have dilation of the LA,
 - don't have fibrillation of the LA,
 - don't have pulmonary hypertension.
- Drug therapy – prevention of injection endocarditis, therapy of the atrium fibrillation, therapy of he heart failure (ACEI, sartans, diuretics),
- in acute MS is acute surgery indicated, nitrates, kardiotonics, IABP (intra-aortic balloon pump).

Video of mitral inssufficiencies

Auscultation



Video in english, definition, pathogenesis, symptoms, complications, therapy.



Source

Related articles

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