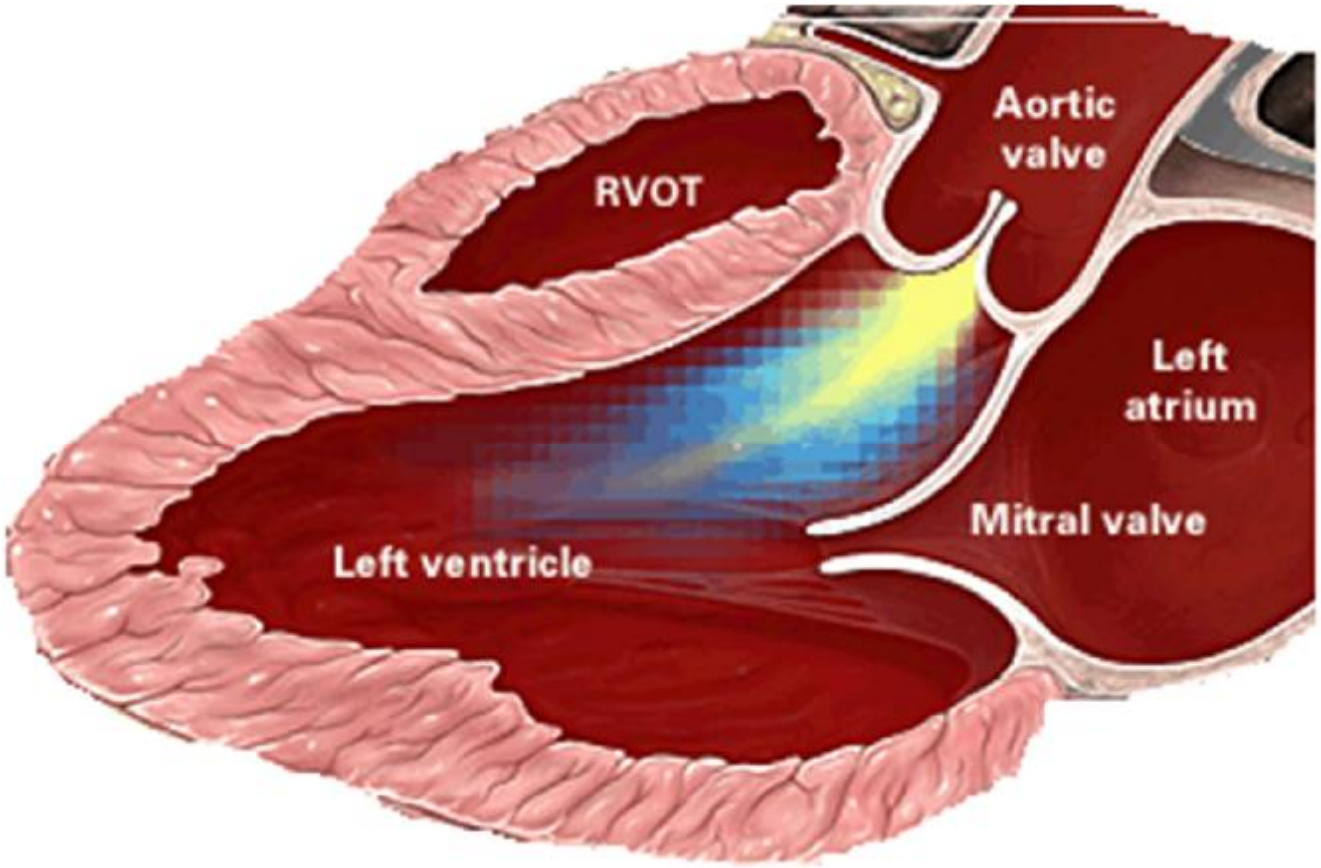
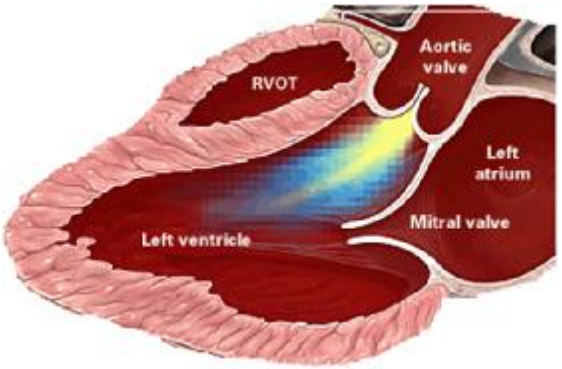
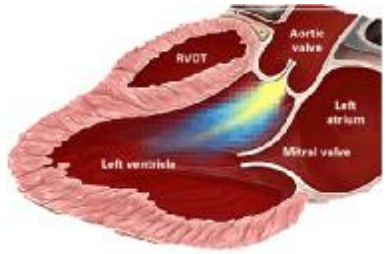
AORTIC REGURGITATION



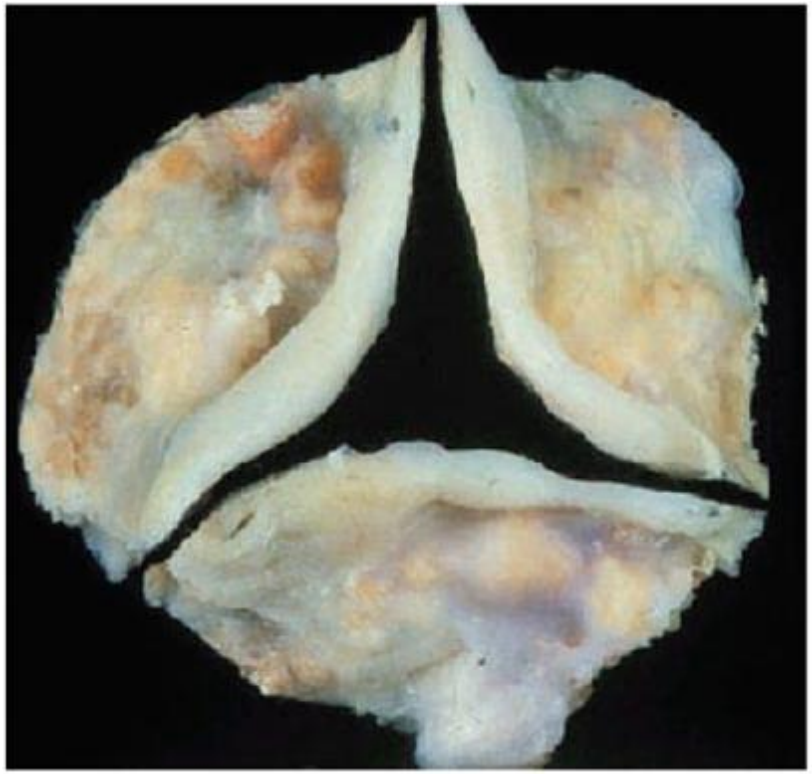
- Aortic regurgitation can be classified as being the result of an
- acute or chronic process.





- Chronic aortic regurgitation is the result of failure of coaptation of the aortic valve leaflets

- caused by *diseased valve cusps, dilatation of the aortic root or both.*



Acute aortic regurgitation

is usually associated with blunt chest trauma,

endocarditis or

aortic dissection and

is a surgical emergency in most situations

Clininal Presentation

- **Signs and Symptoms:**

- ***Chronic Aortic Regurgitation:***

- Patients are usually asymptomatic for a long time and when symptoms develop they are

- usually related to pulmonary congestion; first effort dyspnea , orthopnea and paroxysmal nocturnal dyspnea

- later signs of right heart failure.

- Angina bay be present due to diminished pressure gradient across the coronary bed

b) Acute Aortic Regurgitation:

- Pulmonary edema is usually the presenting picture,

Physical Findings:

- **a)** ***Patients with chronic aortic regurgitation typically do not have symptoms until late in the*** disease process when significant left ventricular dysfunction is present.

- **b)*****Severe acute aortic regurgitation constitutes a surgical emergency.***

- ***A patient with newly*** discovered aortic regurgitation and chest pain should be considered to have *aortic dissection until* proved otherwise.

- Patients with history of blunt trauma to the chest should be examined for the presence of aortic regurgitation.

- In cases of bacterial endocarditis by history or clinical presentation, the presence of aortic regurgitation has to be ruled out.

- **c) General Examination:**
- •Examine for *Marfanoid characteristics among young patients with aortic regurge.(Ectopia lentis;*
- high arched palate; pectus and arachnodactly)
- •Signs of bacterial endocarditis.

- •Prominent apical impulse.
- •Blood pressure:

  Widening of the pulse pressure causing hyperdynamic circulation with an

  elevated systolic and an abnormally low diastolic pressure

sign	Physical finding
Musset's Sign	Head bobbing with each beat
Muller's Sign	Systolic pulsation of the Uvula
Hill's Sign	Popliteal cuff pressure >40mmHg Above Brachial
Corrigan's	Rapid distension and collapse of pulse
Quincke's Pulse	Capillary pulsations visible in the fingernail beds and lips
Duroziez's Sign	To and fro murmur over the femoral *artery* with the artery compressed
Pistol shot	Prominent systolic and diastolic sounds over the femorals

PHYSICAL FINDINGS

- MURMURS
  - DIASTOLIC HIGH PITCHED BLOW
  - LOUD SYSTOLIC AORTIC EJECTION FLOW MURMUR
  - DIASTOLIC RUMBLE AUSTIN FLINT MURMUR
    - MISTAKEN FOR MITRAL STENOSIS

LABORATORY

- ECG
  - LEFT VENTRICULAR HYPERTROPHY
    - WITH STRAIN
  - ECHOCARDIOGRAM
    - FLOW INTO LV FROM AORTIC VALVE
    - LV SIZE
    - FLUTTERING OF MITRAL LEAFLET
    - CxR cardiomegaly
  - BLOOD CULTURES IN ENDOCARDITIS

TREATMENT

- CONGESTIVE HEART FAILURE TREATMENT
  - DIGOXIN, DIURETICS, AFTERLOAD REDUCTION

SBE prophylaxis

RF prophylaxis

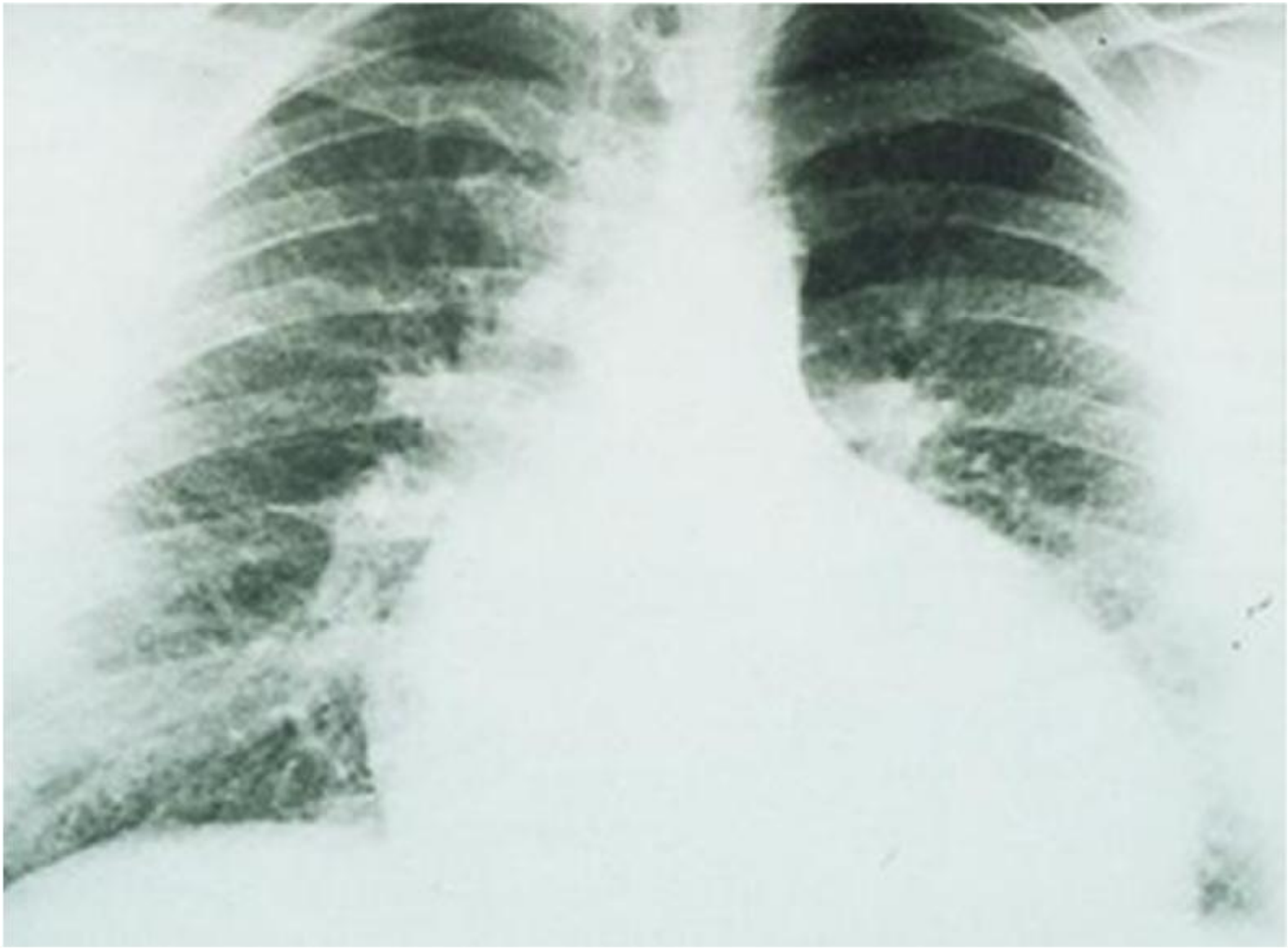
Surgical Therapy

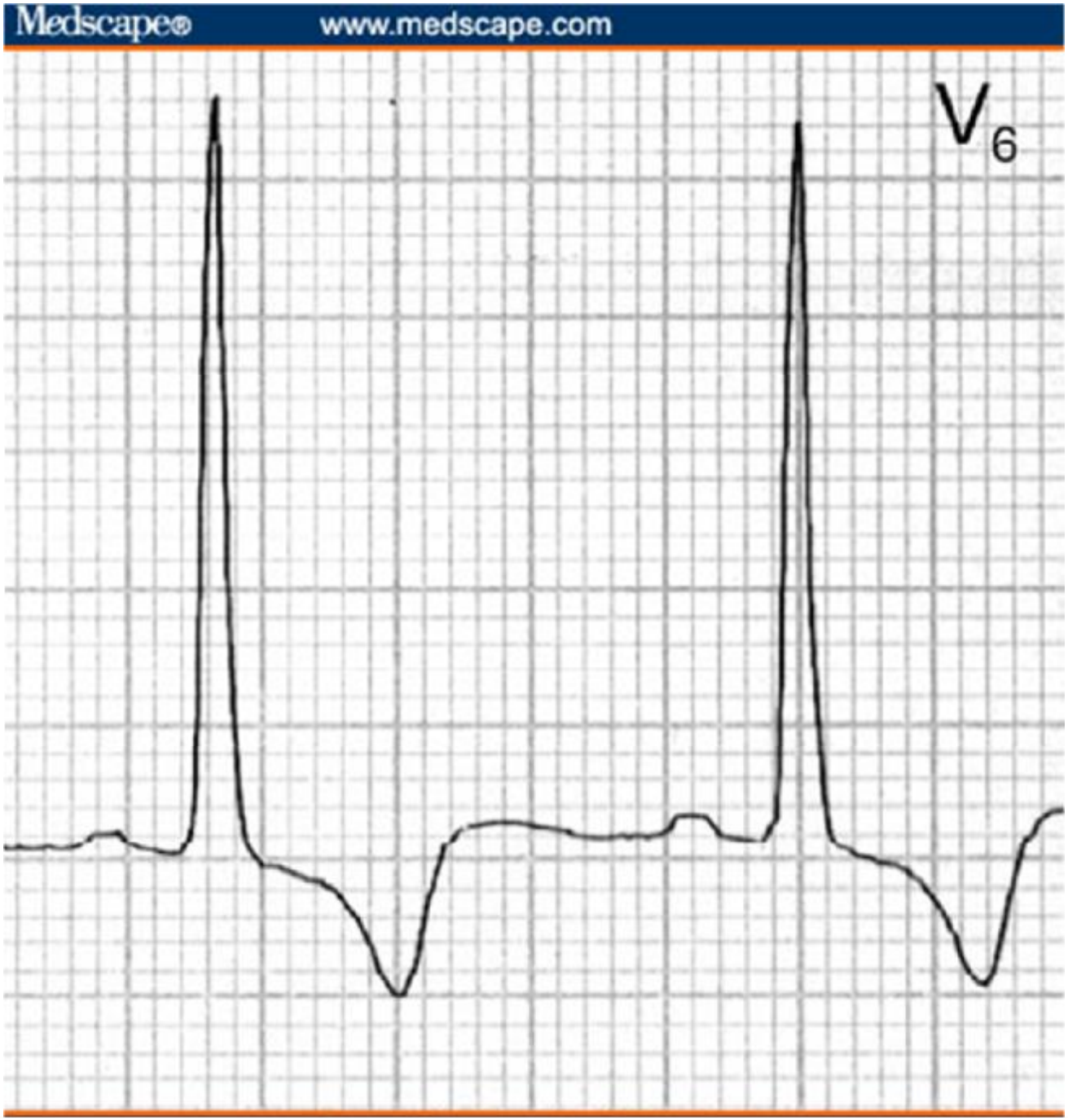
Surgical treatment of AV replacement of the diseased valve with a prosthetic valve. It is indicated in

- All symptomatic patients regardless of the LV function.
- Asymptomatic patients with
  - LV dysfunction as evidenced by an EF < 50%
  - or
  - an end systolic dimension > 55mm from M-mode echocardiography

- Preoperative predictors of poor postoperative survival and LV function include the following:

- o LVESD greater than 55 mm
- o LVEF less than 0.50
- o NYHA CHF class III, IV
- o Duration of CHF symptoms longer than 12 months

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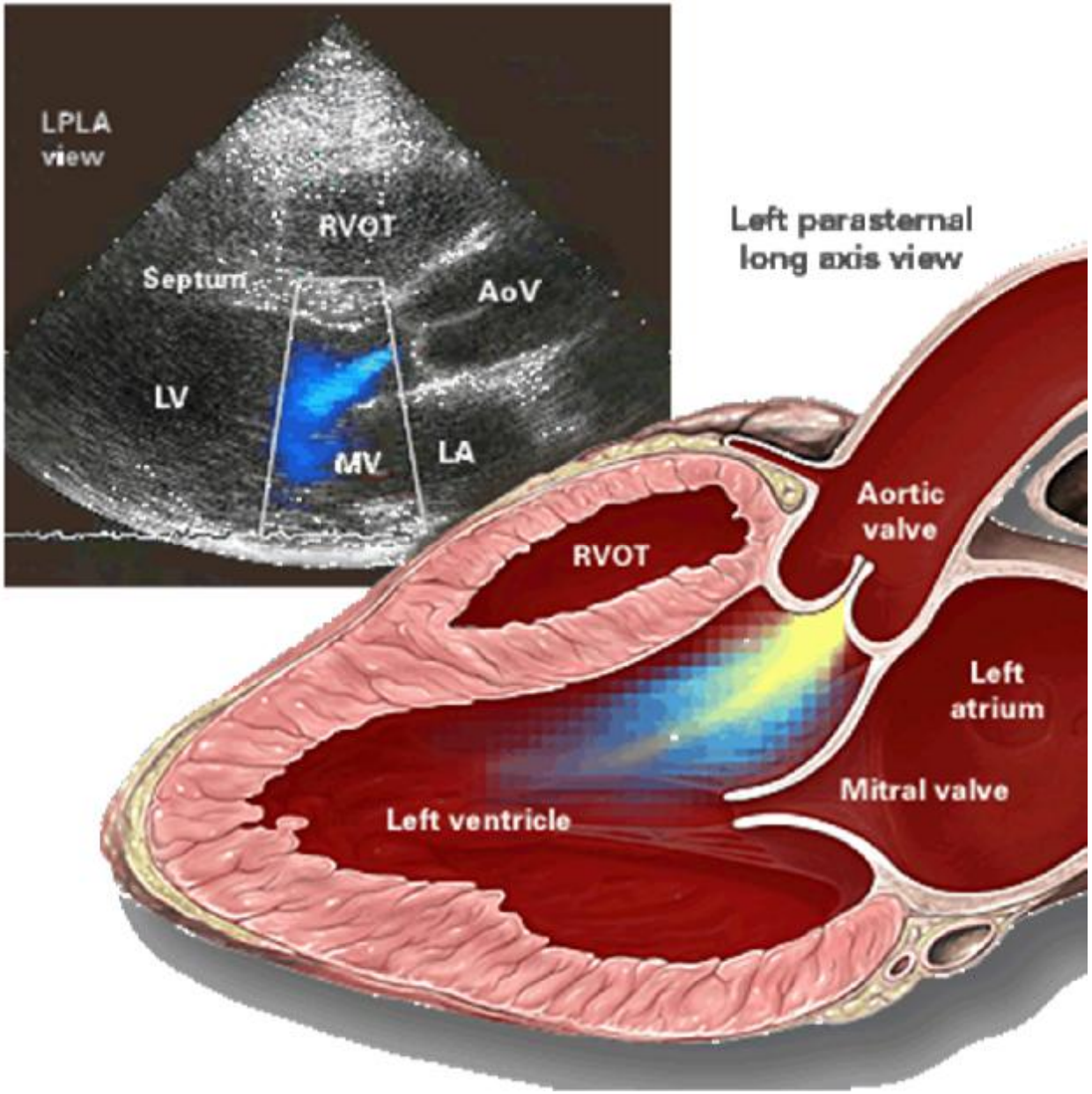
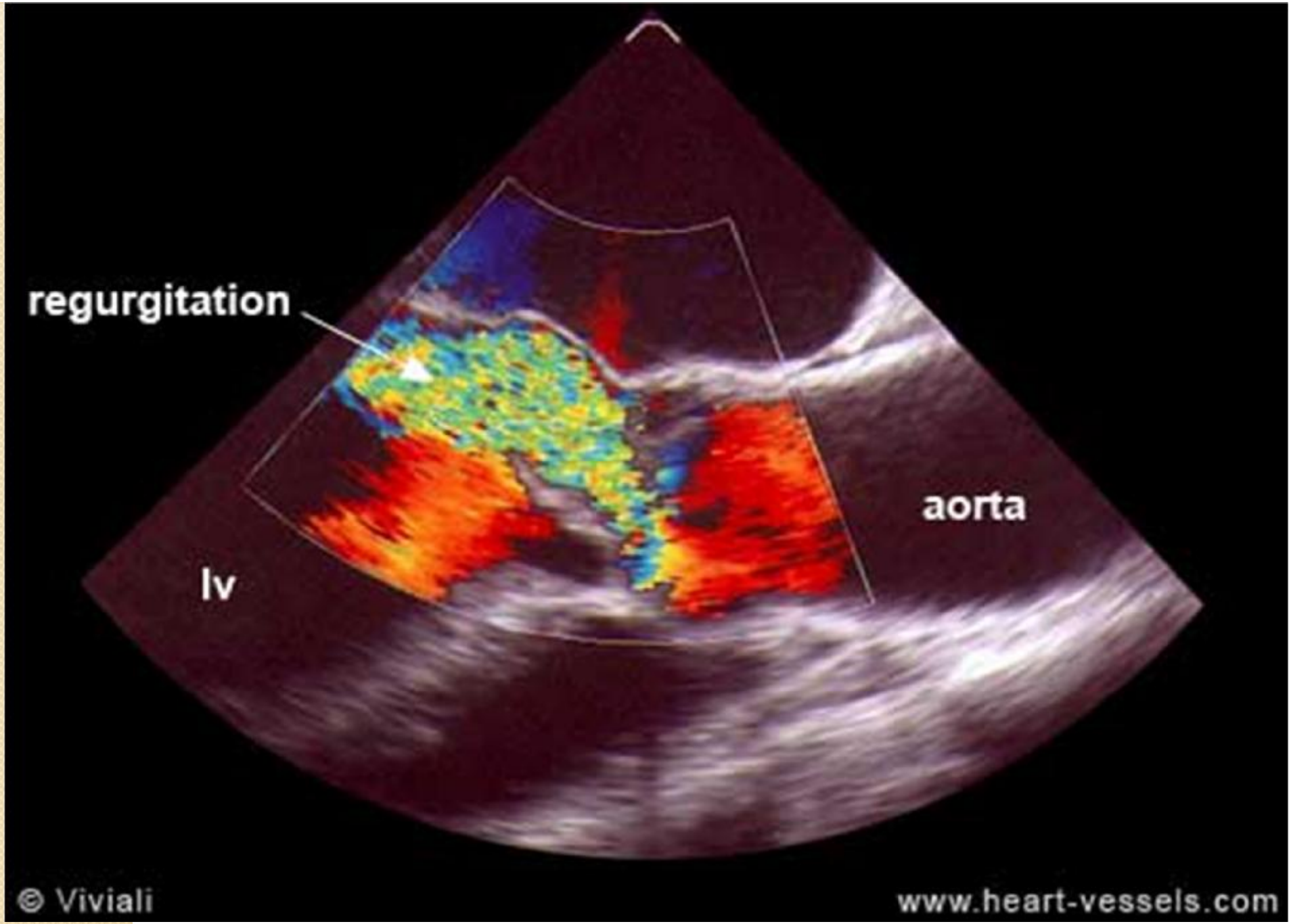

LPLA
view
RVOT
Septum
AoV
LV
MV
LA
Left parasternal
long axis view
Aortic
valve
RVOT
Left
atrium
Mitral valve
Left ventricle


regurgitation
aorta
lv
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Thank You