



VALVULAR HEART DISEASE

MITRAL STENOSIS

ETIOLOGY

§ MOST COMMON CAUSE OF MITRAL STENOSIS RHEUMATIC VALVULAR DISEASE

- ú Pure mitral stenosis 25%
- ú Pure mitral regurgitation 35%
- ú Combined MS and MR 40%

§ 15 TO 20 YEAR LATENCY PERIOD

ETIOLOGY

OTHER CAUSES

§ CONGENITAL

§ MALIGNANT CARCINOID

§ SLE OR RHEUMATOID ARTHRITIS

§ AMYLOID

§ METHYLSERGIDE THERAPY

PATHOLOGY

SYMPTOMATIC MITRAL STENOSIS

§ THICKENED MITRAL CUSPS

ú +/- CALCIFIC DEPOSITS

§ FUSION OF VALVE COMMISSURES

§ SHORTENING OF CHORDAE WITH FUSION

§ "FISH MOUTH" OR FUNNEL ORIFICE

HISTORY

§ PRINCIPLE SYMPTOM IS DYSPNEA

- ú Reduces compliance of the lung

§ PULMONARY EDEMA

- ú Effort, emotional stress, infection, fever, pregnancy

§ ATRIAL FIBRILLATION

- ú Increased rate causes increased LA to LV gradient

HISTORY

§ CHEST PAIN

- ú 15% DUE TO RV HTN, EMBOLIZATION

§ THROMBOEMBOLISM

- ú 20% HISTORICALLY INVOLVED
- ú CORRELATES INVERSELY WITH CARDIAC OUTPUT
- ú CORRELATES DIRECTLY WITH LA SIZE AND AGE OF PATIENT

PHYSICAL EXAMINATION

§ ARTERIAL PULSE NORMAL OR DIMINISHED

§ JUGULAR PRESSURE PROMINENT a WAVE

§ PALPATION

ú RV HEAVE due to RVH

PHYSICAL EXAMINATION

AUSCULTATION

§ Load S1

§ OPENING SNAP

- ú SUDDEN TENSING OF VALVE LEAFLETS

- ú A2-O5 INTERVAL SHORTENS WITH SEVERITY

§ DIASTOLIC MURMUR

- mid diastolic rumble in character
- max intensity in MA

PATHOPHYSIOLOGY

§ NORMAL VALVE AREA 4 TO 6cm²

§ NORMAL MEAN LA TO LV PRESSURE GRADIENT 2 TO 4mmHg

§ MILD MITRAL STENOSIS 2 cm²

§ CRITICAL MITRAL STENOSIS 1 cm² or less

MANAGEMENT

NATURAL HISTORY

§ 20 TO 25 YEAR ASYMPTOMATIC PERIOD

§ 5 YEARS FOR PROGRESSION CLASS II-IV

§ SURVIVAL

ú CLASS III 62% 5 YR SURVIVAL

ú CLASS IV 15% 5 YR SURVIVAL

§ ASYMPTOMATIC CLASS 1 40% WORSENERD
OR DIED IN 10 YEARS

MANAGEMENT

MEDICAL TREATMENT

§ RHD AND SBE PROPHYLAXIS

§ SYMPTOMATIC PATIENTS

§ ACTIVITY RESTRICTION

ú ORAL DIURETICS AND

ú DIGOXIN IN AF

§ ANTICOAGULATION FOR

LA SIZE >5.5cm,

EMBOLISM OR

ATRIAL FIBRILLATION

MANAGEMENT

~~SURGICAL TREATMENT~~

OPERATE FOR SEVERE SYMPTOMS §

CLASS III OR GREATER (SYMPTOMS WITH LESS THAN USUAL ACTIVITY) ú

PULMONARY HTN DEMANDS OPERATION ú

ROUTINE CATHETERIZATION MEN > 45 §

MILDLY SYMPTOMATIC PATIENTS §

CONSIDER SIZE OF MV ORIFICE, LIFESTYLE AND HISTORY OF COMPLICATIONS ú

MANAGEMENT

BALLOON VALVULOPLASTY

§ Pliable valve

§ Pure stenosis

§ Noncalcified

§ RESULTS COMPARABLE TO SURGERY

§ MORTALITY 2-3%, MORBIDITY 8-12%

Valve replacement

Tissue valve
elderly

Pregnant women

No need for long term anticoagulant
durability ,

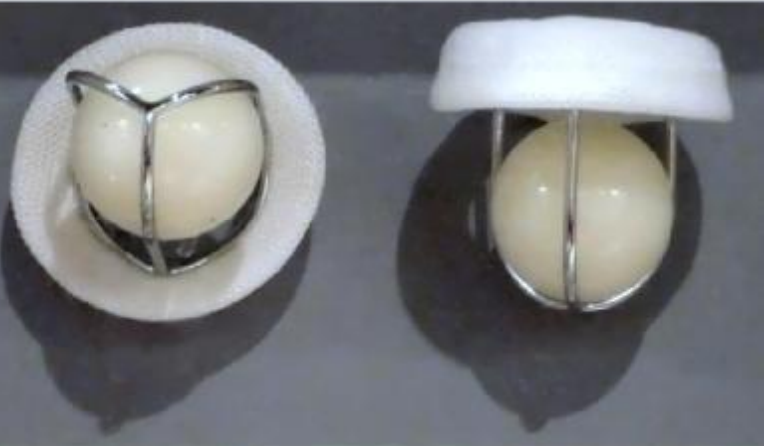
Short

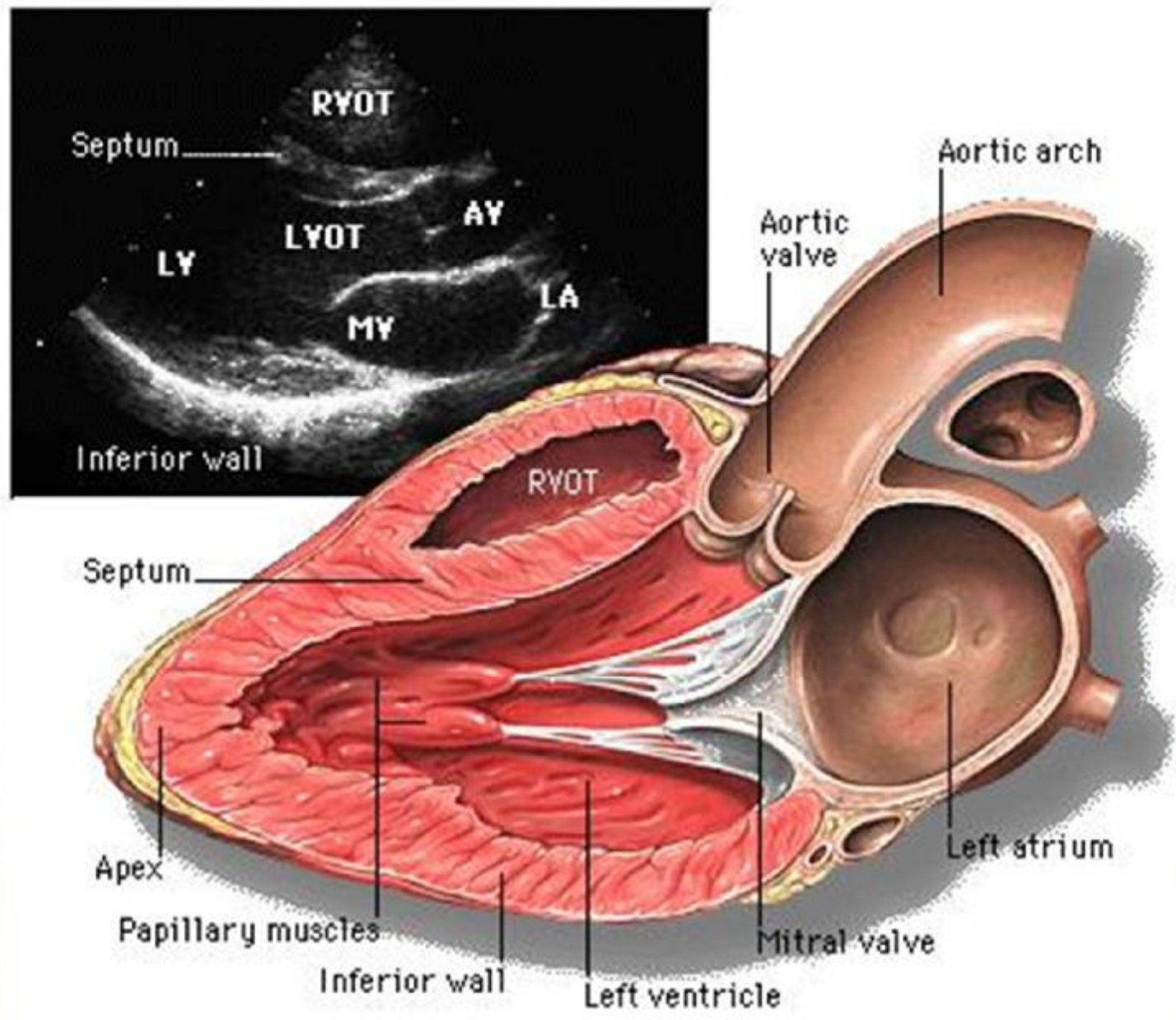
Prosthetic valve

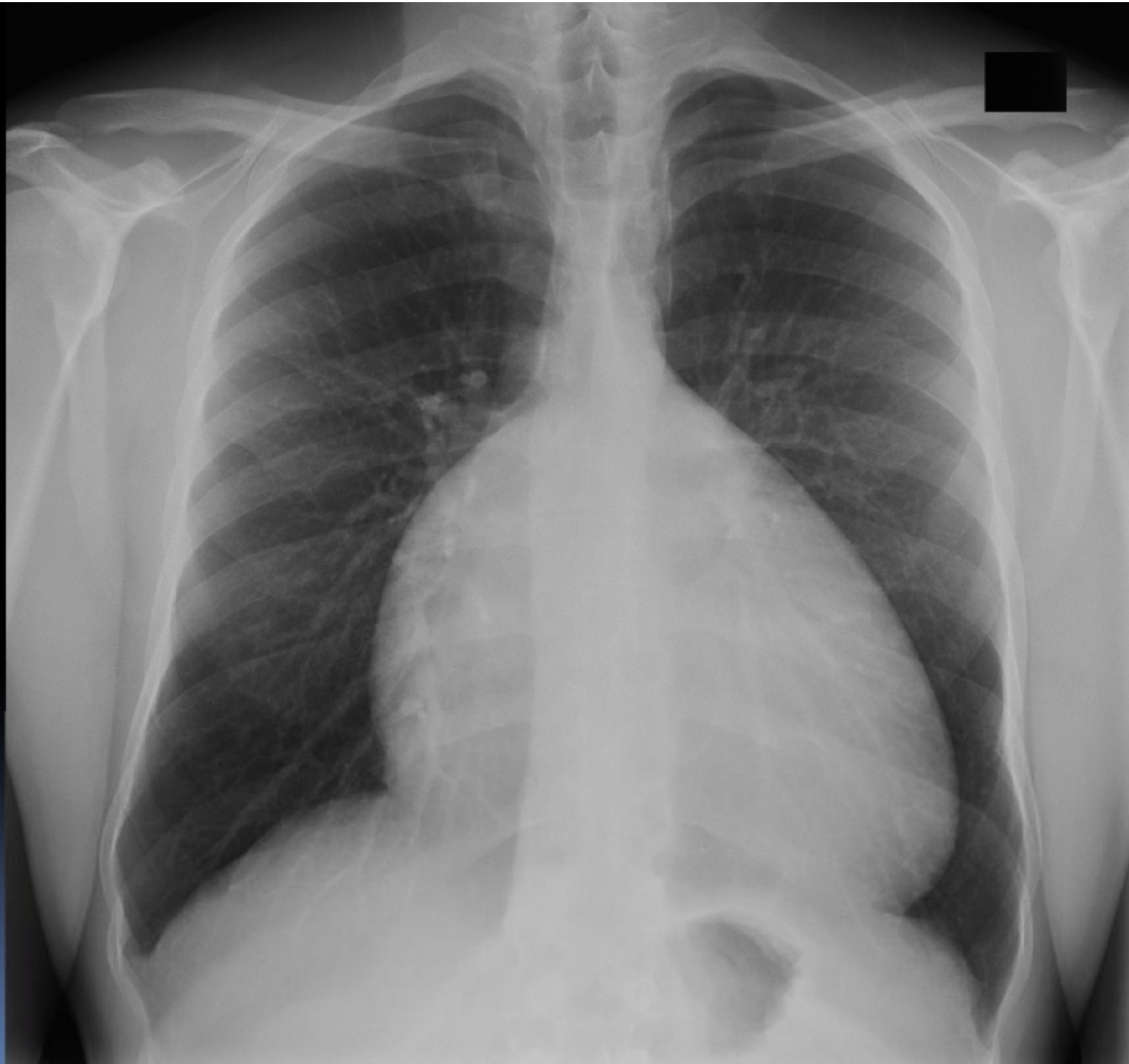
Long durability

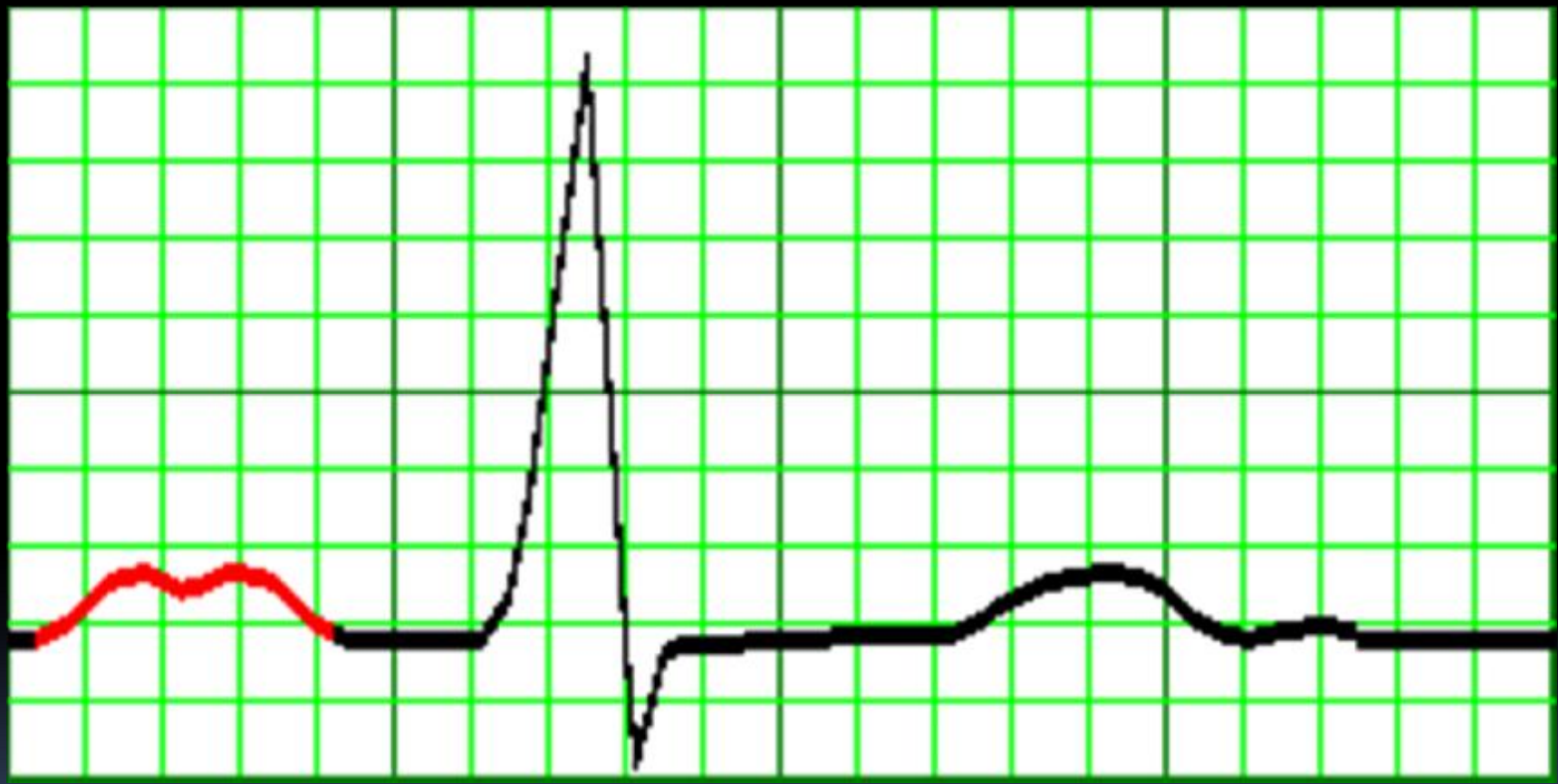
Long term anticoagulant

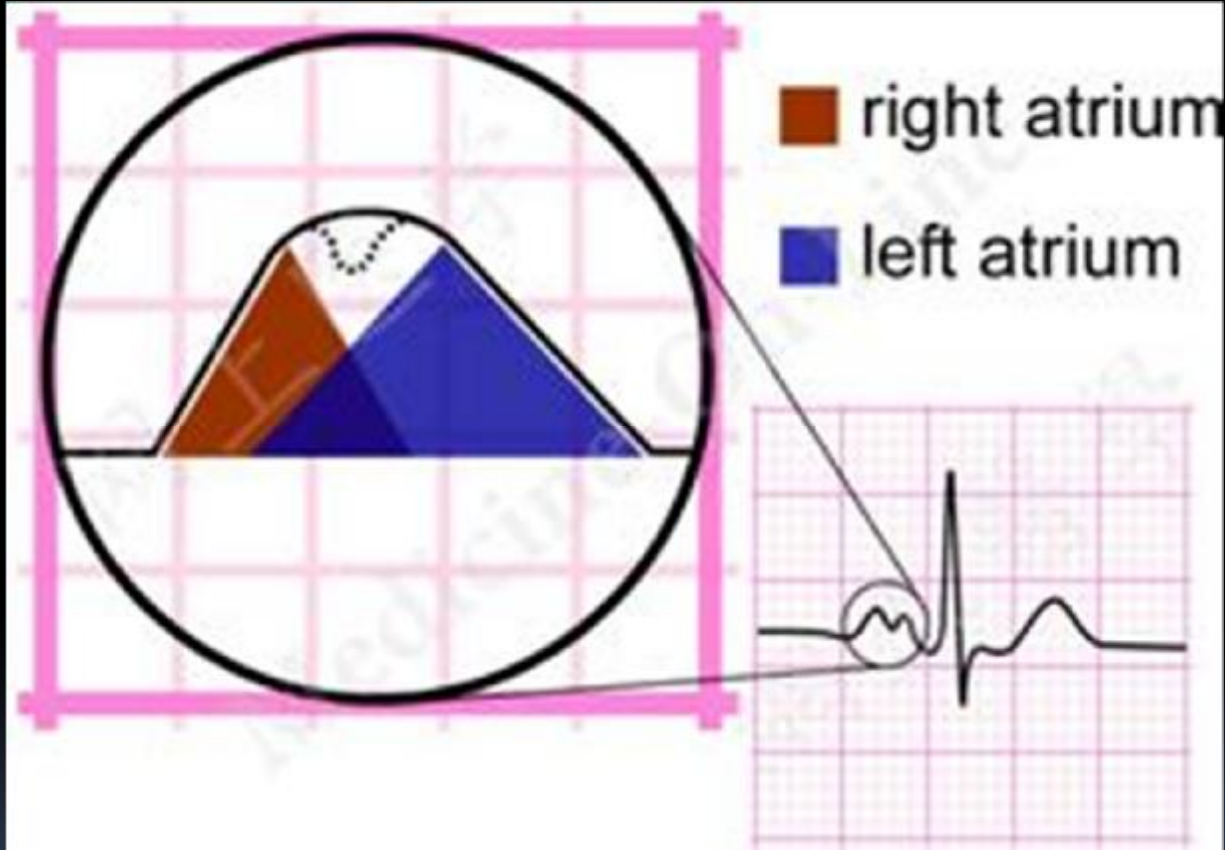




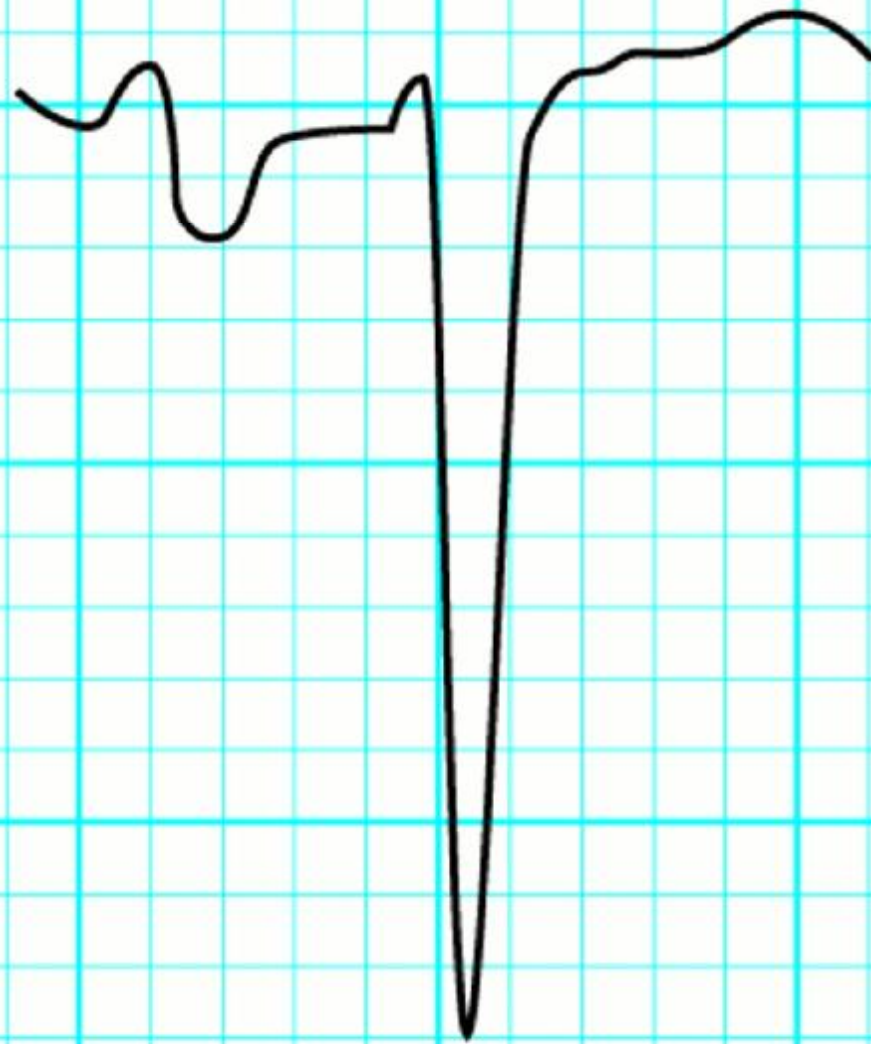






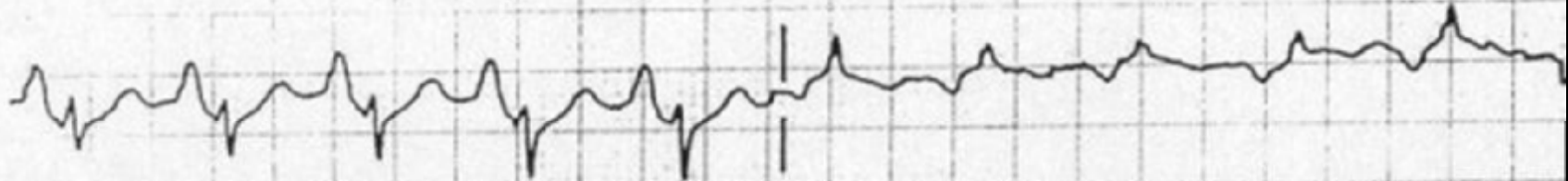






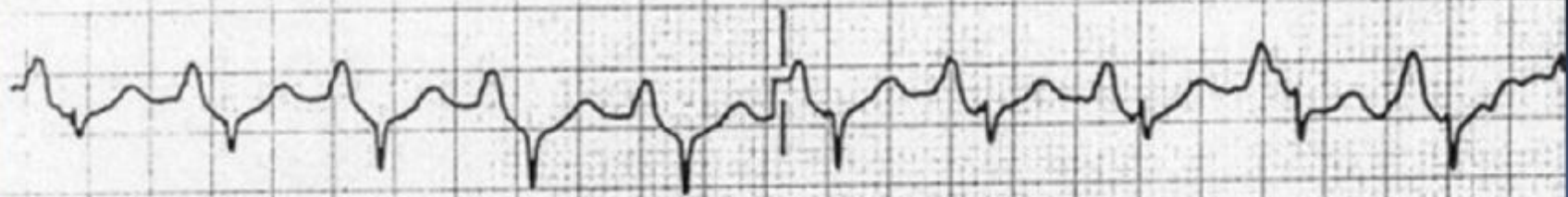
II

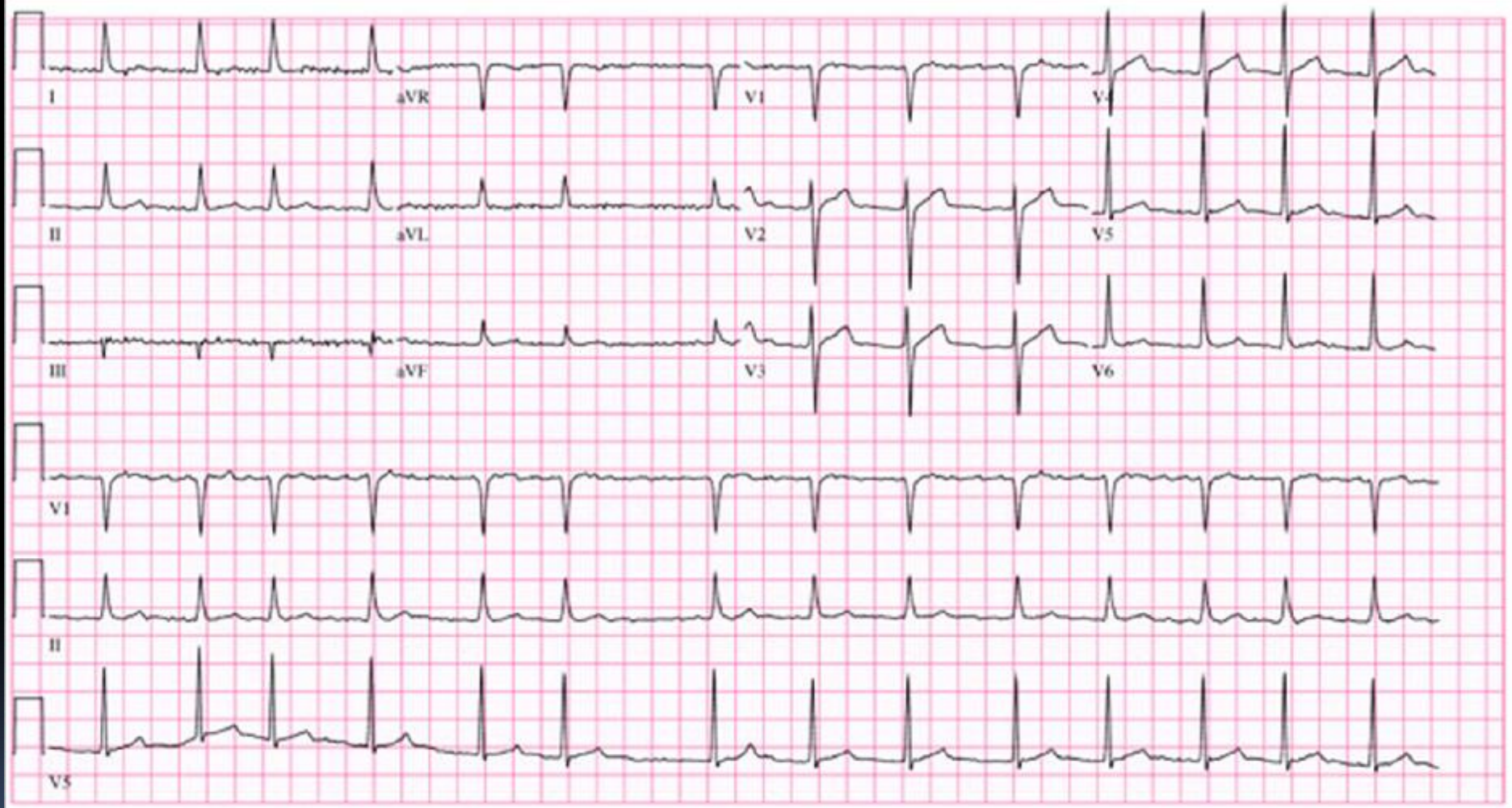
aVL



III

aVF





25mm/s 10mm/mV 100Hz 005E 12SL 233 CID: 1

THANK YOU