


ECG ANALYSIS OF ARRHYTHMIAS III. (CONDUCTION ABNORMALITIES)

ECG SIGNS OF VOLUME AND PRESSURE OVERLOAD

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FACULTY OF MEDICINE
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1

Conduction abnormalities

Sinoatrial conduction disturbances

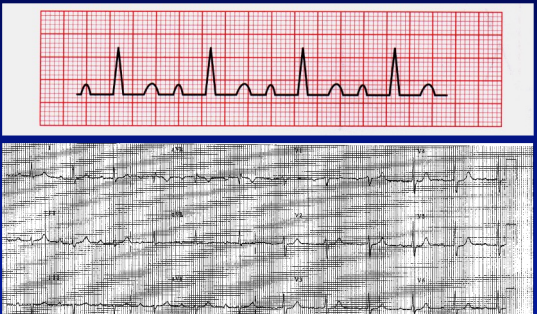
Atrio-ventricular conduction disturbances (AV-blocks)

1. First degree AV block
2. Second degree AV block
 - a/ Mobitz I
 - b/ Mobitz II
- 2:1 AV block
- High degree AV block

Intraventricular conduction disturbances

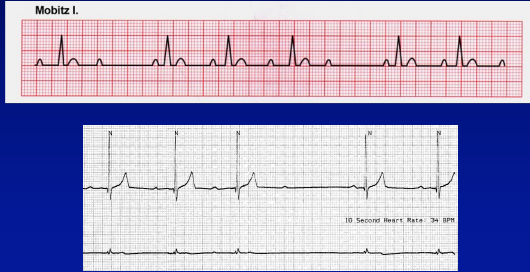
2

First degree AV block



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Second degree AV block – Mobitz I.



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Second degree AV block – Mobitz II.

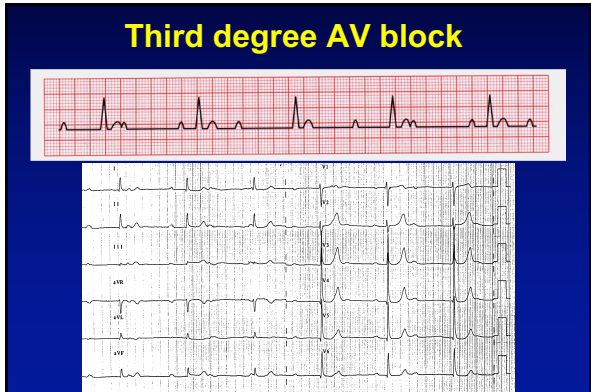


5

Second degree AV block – 2:1 AV block



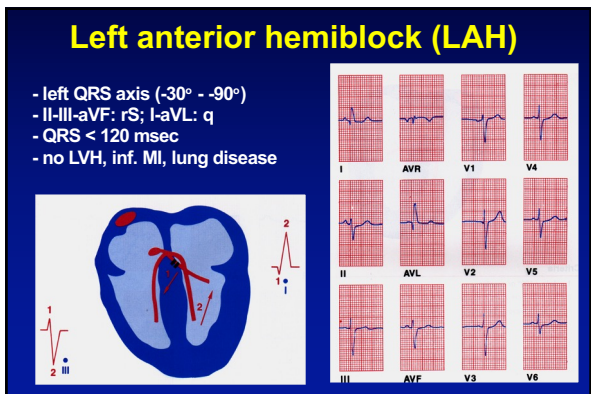
6



7

- ### Intraventricular conduction disturbances
1. Left anterior hemiblock (LAH)
 2. Left posterior hemiblock (LPH)
 3. Left bundle branch block (LBBB)
 4. Right bundle branch block (RBBB)
 5. Bifascicular blocks
 6. Trifascicular blocks

8



9

Left posterior hemiblock (LPH)

- right QRS axis ($> +120^\circ$)
- II-III-aVF: qR; I-aVL: S
- QRS < 120 msec
- no RVH, lat. MI, lung disease

10

Left bundle branch block (LBBB)

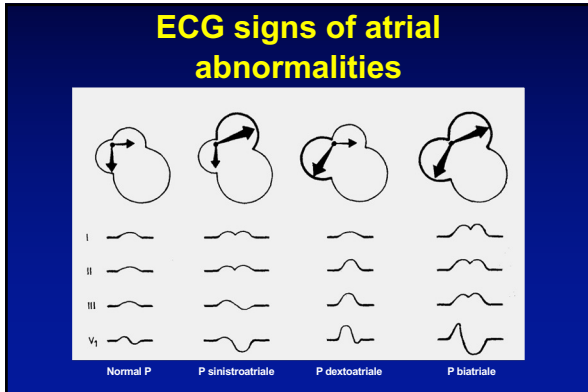
- QRS > 120 msec
- I-aVL-V5-V6: no q, wide R
- V1-V2: QS
- V6: elongated VAT

11

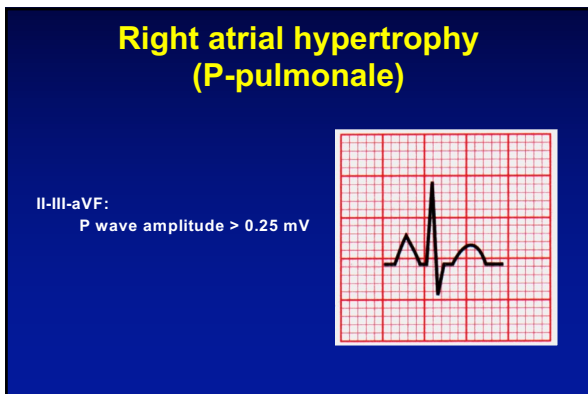
Right bundle branch block (RBBB)

- QRS > 120 msec
- I-aVL-V5-V6: wide S
- V1-V2: rSR', negative T
- V1-V2: elongated VAT

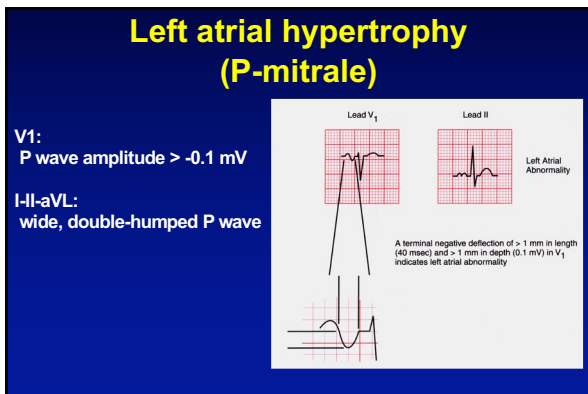
12



13



14



15

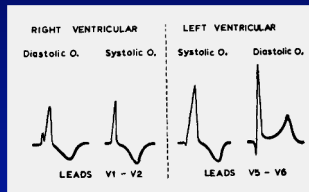
Right and left ventricular diastolic and systolic overload

Right ventricular diastolic ol.:
RBBB

Right ventricular systolic ol.:
signs of „strain”

Left ventricular distolic ol.:
concave ST elevation

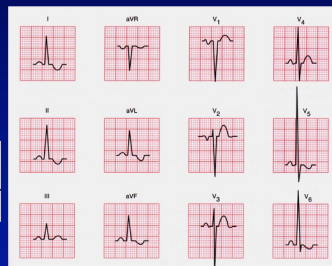
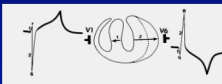
Left ventricular systolic ol.:
signs of „strain”



16

Left ventricular hypertrophy

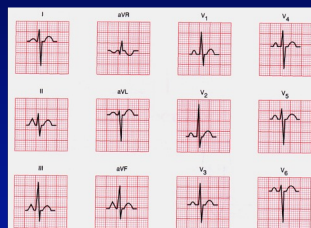
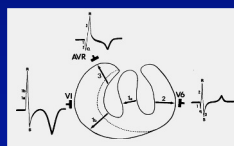
I-aVL-V5-V6: tall R
V1-V2: deep S
 $V1S + V5R > 35 \text{ mm}$
V5-V6: VAT $> 0.045 \text{ sec}$
I-aVL-V5-V6: „strain”
Left axis



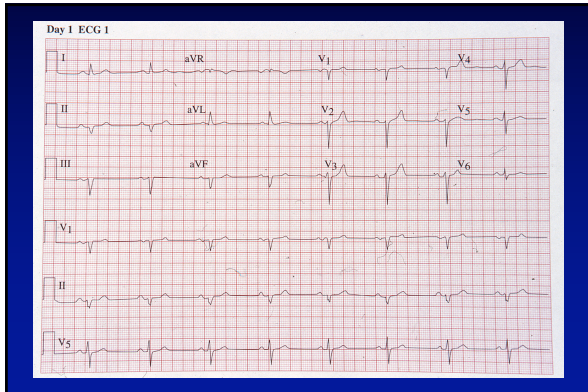
17

Right ventricular (right heart) hypertrophy

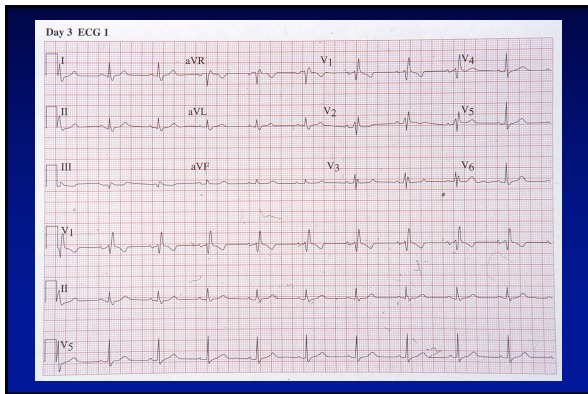
S1-R2-R3, right deviation
V1-V2: tall R wave ($R \geq S$)
V1-V2-aVR: „strain”
RBBB
P- pulmonale
Low voltage



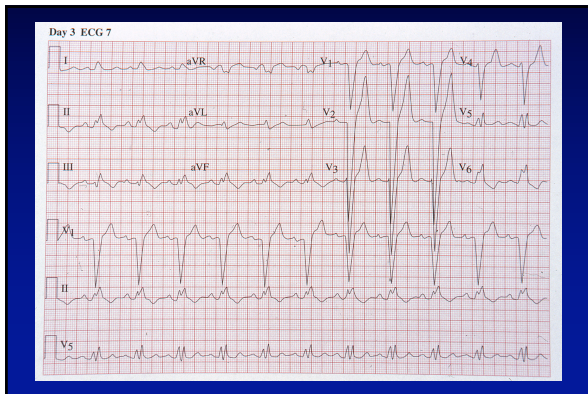
18



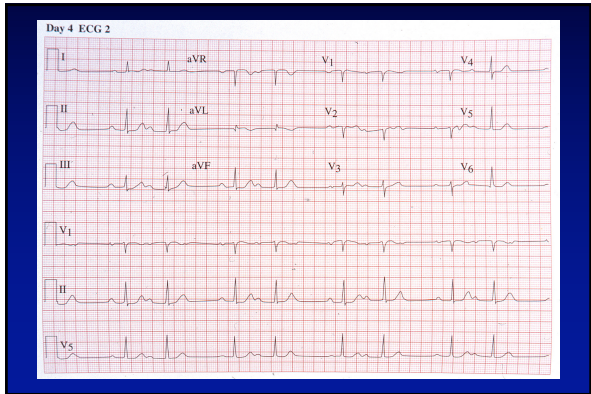
19



20



21



22



23
