

# ELECTROLYTE DISORDERS

UNIVERSITY OF DEBRECEN  
FACULTY OF MEDICINE  
DIVISION OF CLINICAL PHYSIOLOGY



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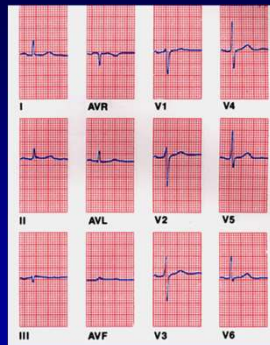
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## Hypokalaemia

- prominent U waves
- flat, wide and inverted T waves
- QT elongation
- ST depression
- conduction abnormalities,
- PQ elongation
- ventricular, SV arrhythmias
- polymorph VT



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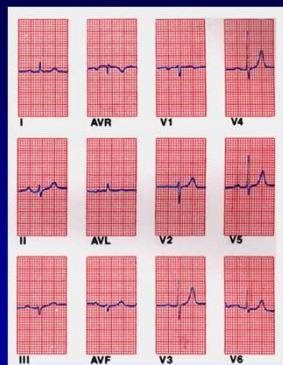
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## Hyperkalaemia

- tall, sharp T waves
- reduction of R wave amplitude
- QRS widening
- PQ elongation
- ST depression
- asystolia



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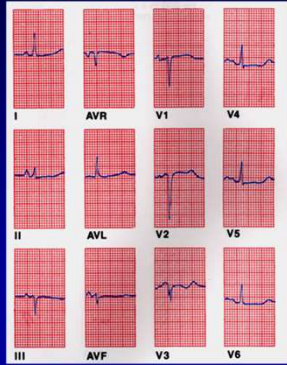
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## Hypocalcaemia

- QT elongations
- flat or inverted T wave
- ST segment depression
- subendocardial ischaemia like picture



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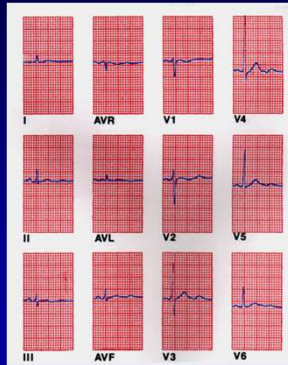
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## Hypercalcaemia

- QT shortening
- rarely ST segment elevation
- digitalis like picture



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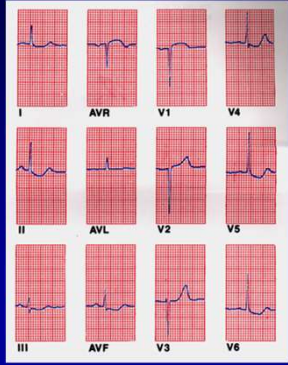
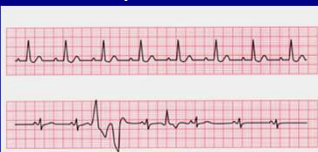
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## Digitalis effect

- ST scooping,
- T inversion,
- QT shortening
- PQ elongation,
- bradycardia
- AV block (toxic dose)
- abnormal impulse formation



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## Final exam test bank – Int-1.11

The most common pathology of myocardial infarction:

- A) coronary embolism
- B) rupture of an atherosclerotic plaque
- C) dissection of coronary walls
- D) growing of an atherosclerotic plaque
- E) coronary inflammation

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## Final exam test bank – Int-1.28

These could be the first ECG findings in the acute phase of myocardial infarction, except for:

- A) pathologic Q waves
- B) inverted T waves
- C) ventricular fibrillation
- D) ST segment elevation
- E) ST segment depression

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## Final exam test bank – Int-1.56

A 55-year-old patient with a history of hypertension has been rushed to the emergency room because of severe chest pain and ST segment elevation. Possible diagnosis/diagnoses:

- |                                |                                   |
|--------------------------------|-----------------------------------|
| 1) peptic ulcer                | A) Answers 1, 2 and 3 are correct |
| 2) acute myocardial infarction | B) Answers 1 and 3 are correct    |
| 3) mitral valve prolapse       | C) Answers 2 and 4 are correct    |
| 4) aortic dissection           | D) Only answer 4 is correct       |
|                                | E) All of the answers are correct |

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## Final exam test bank – Int-1.73

To do in case of typical infarction chest pain is present for longer than one hour and ST-elevation of more than 1 mm is detected between two ECG-leads:

- 1) To take rest myocardial perfusion scintigraphy
  - 2) Send the patient to hospital where percutaneous coronary intervention can be performed
  - 3) To determine the next action diagnosticate serum-necroenzym level
  - 4) Strict monitoring to detect arrhythmia
- A) Answers 1, 2 and 3 are correct  
B) Answers 1 and 3 are correct  
C) Answers 2 and 4 are correct  
D) Only answer 4 is correct  
E) All of the answers are correct

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## Final exam test bank – Int-1.192

In the case of acute inferior + right ventricular STE-ACS the responsible vessel is:

- A) LAD (left anterior descendent)  
B) CX (circumflexus)  
C) RCA (right coronary artery)  
D) none of them

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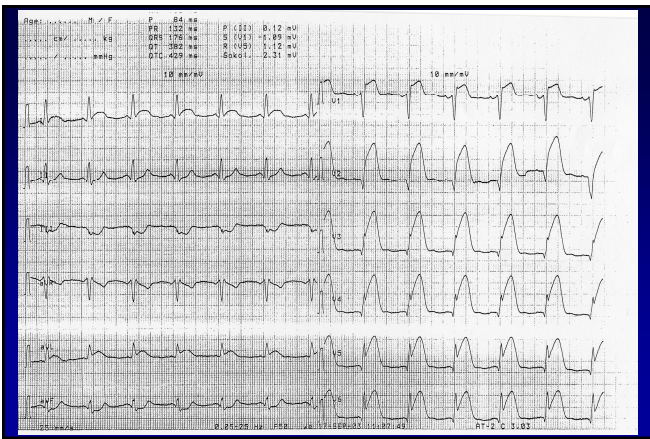
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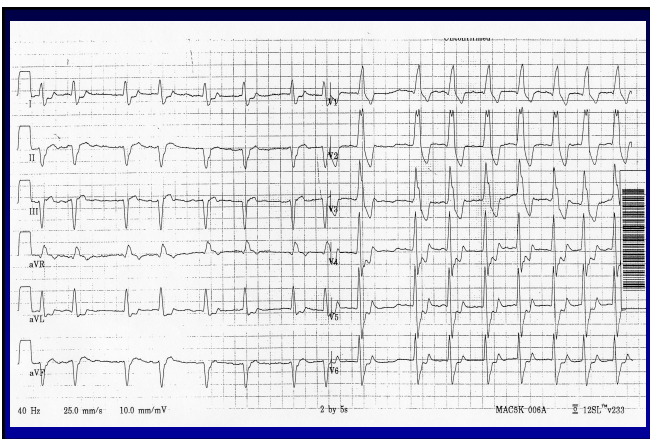
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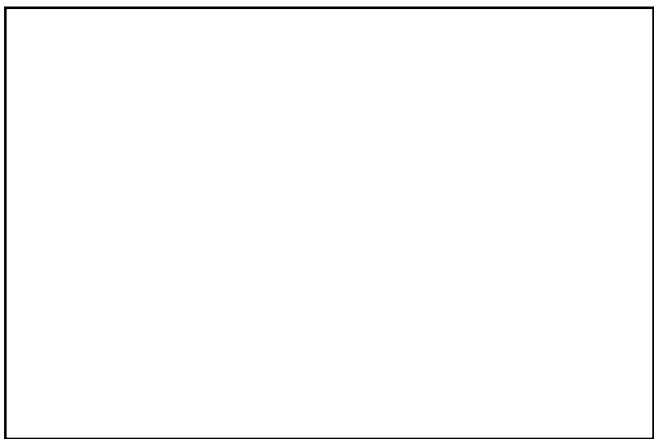
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