

# Myocardial infarction

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# Myocardial infarction

Irreversible necrosis of a part of heart muscle due to insufficient supply of blood

The causes:

blockage of coronary artery

- by thrombus ( 80%)
- by long lasting spasms of narrowed coronary artery (20%)

# Symptoms

Sudden intensive pain underneath the sternum  
lasting several minutes

The pain irradiates often to the left shoulder  
or to the abdomen

Weakness, flat breathing, dyspnoe

Pale, sweating, dizziness

Tachycardia, low BP, faintness

Cardiogenic shock

# Myocardial infarction

Transmural – the whole thickness of the wall

Nontransmural – subendocardial lesion

Threatening of life:

Large extent of ischemia

Damage to nerves running the rythm

Fibrillation of ventricles

Severe bradycardia

Rupture of the hearth wall

First aid

Rest, fresh air

Position in half sitting

Morphin, Phentanyl

Tablet or spray of nitroglycerin under the tongue

Isosorbit – dinitrate spray in lung edema

Aspirin

CPR

Transport to coronary unit

# Management

Admission to coronary unit

Stent

PTCA- percutaneous transluminal coronary  
angioplasty

Trombolysis

Oxygen, antiarytmics, diuretics

Surgery later on- coronary bypass

Hearth failure

Disorder of effective mechanical function  
of the hearth

Acute and chronic

In rest or during activity

Left side or right side



# Left side failure

Ischemic heart disease

Hypertension, congenital anomalies

Stenosis of insufficiency of valves

Disorder of myocardial muscle

Arythmia

Overloading of circuit

# Symptoms

Weakness, dyspnoea in rest

Hyperventilation, tachycardia, cyanosis

Sputum of pink colour

Lung oedema

Asthma cardiale – bronchospasmus

Right side failure

Pulmonary embolism

Stenosis of pulmonary artery

Mitral stenosis

Ischemic hearth disease

# Symptoms

Fatigue, weakness, dyspnoea, cyanosis

Oedema of low extremities

Enlargement of liver, ascites

Dilation of neck veins

Cor pulmonale

Acute- pulmonary embolism

Chronic - emphysema of lungs, bronchitis

First aid

Fowler position

Fresh air, oxygen

Rest, drugs for the heart

Management:

Admission to medical ward