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ABSTRACTS

Functions and state of endothelial glycocalyx in the norm and pathology conditions

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Abstract
In normal state, a complex multicomponent system called glycocalyx is present on the surface of endothelial vascular system. The structure of the glycocalyx is determined by a group of proteoglycans, glycoproteins and glycosaminoglycans, originating from endothelial cells and blood flow. Due to its complexity and location on the border of the system of blood circulation, glycocalyx participates in a number of functions supporting the metabolism of the vascular wall. Complete or partial loss of this structure in pathological conditions leads to inconsistencies in the vascular wall and changes its functions. In this review we considered functions of endothelial glycocalyx: its involvement in the regulation of vascular permeability, transduction and transformation by the shear stress of blood flow on endothelium, the molecular regulation of glycocalyx microenvironment and its interaction with circulating blood cells.
Keywords: endothelium, glycocalyx, vascular permeability, shear stress, cell-cell interactions, hyperglycemia, ischemia/ reperfusion, atherosclerosis.

Comparative evaluation of functional methods in the diagnosis of coronary artery disease

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Abstract
Provides indications, contraindications, comparative evaluation of different functional methods in the diagnosis of coronary artery disease, the sensitivity and specificity of the methods. Author describes stress-ECG, consider the possibility of assessing myocardial perfusion techniques of stress echocardiography, MRT and Multislice CT.
Key words: ischemic (coronary) heart disease, diagnosis, stress ECG-tests, assessment of myocardial perfusion, stress echocardiography, computed tomography, coronary angiography, a meta-analysis.

Possibilites of PETfor myocardial metabolism estimation

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Abstract
There is high interest to PET in modern cardiology caused by efficiency of a method in differential diagnostics of a healthy and damaged tissue, high sensitivity and specificity in

revealing of subclinical focal changes. PET is used successfully for an estimation of an aerobic metabolism of fat acids, an anaerobic metabolism of glucose and an oxidative metabolism.
Keywords: PET, myocardial viability, myocardial perfusion, atherosclerosis.

Clinical and genetic aspects of primary dyslipidemia

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Intensive treatment with atorvastatine. Treatment efficiency improving

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Abstract

The analysis of a 80 mg per day atorvastatin intake utility and clinical situations when high dose atorvastatin prescription is beneficial and helps to reach better cardiovascular risk reduction in coronary artery disease patients are performed in this article.
Keywords: atorvastatin, coronary artery disease.

Statins in rheumatology

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Abstract

Application of inhibitors of HMG-CoA reductase in patients with rheumatologic diseases is currently limited by hypercholesterolemia. The presence of rheumatic diseases in a patient does not included in current algorithms for assessing cardiovascular risk. This review provides information about additional factors of cardiovascular risk in patients with various rheumatologic diseases.
Keywords: atherosclerosis, statins, rheumatoid arthritis, systemic lupus erythematosus, systemic sclerosis, gout.