

Atherosclerosis and Dyslipidaemias
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ABSTRACTS

**Identification of Patients at High Cardiovascular Risk: Problems and Possible Solutions.
(Part I)**

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Abstract

In the article the problems of identification of high risk patients are discussed. It is shown that the existing scales of cardiovascular risk assessment turn to have some drawbacks. This is mainly due to the fact that people at low and intermediate risk of coronary heart disease are much more than people at high risk in the global population. In addition, risk assessment tools for estimating risk of developing cardiovascular disease still do not provide optimal scenarios for treatment strategies. The current number of risk stratification scales is secondary in relation to Framingham risk score, which is using a system that includes smoking, sex, age, systolic blood pressure, total and high density cholesterol. In this paper authors are considering possible ways of overcoming the limitations of methods for determining the risk of developing cardiovascular disease.

Keywords: cardiovascular risk stratification, risk assessment

The influence of rosuvastatin treatment on atherosclerotic plaque stabilization

A. E. Semenova, I. V. Sergienko, V. V. Kukharchuk

Abstract

The aim of our study was to assess the influence of rosuvastatin on coronary angiogenesis. 30 male patients with chronic coronary heart disease and total cholesterol level >5.2 mmol/l were treated with rosuvastatin 10 mg daily during 3 months. The serum level of total cholesterol (TC), LDL-cholesterol (LDL-C), HDL-cholesterol (HDL-C), triglycerides (TG) as well as C-reactive protein (CRP) and interleukin-6 (IL-6), vascular endothelial growth factor (VEGF) and basic fibroblast growth factor (bFGF) were measured initially and in 3 months. There was the significant decreasing of TC, LDL-C and TG concentrations. IL-6 and CRP serum levels were also decreased after rosuvastatin therapy. Three months of treatment resulted to significant decrease of VEGF with no changes of bFGF levels. The correlation was not found between CRP and VEGF levels and between IL-6 and VEGF levels. Also there was no correlation between the degree of decreasing CRP and VEGF, and IL-6 and VEGF. So we have shown significant decreasing of VEGF serum levels on rosuvastatin therapy. It could be possible mechanism of plaque stabilization in patients with coronary heart disease.

Keywords: vascular endothelial growth factor, fibroblast growth factor, statin, coronary heart disease.

Atherogenous dyslipidemia and liver

O. M. Drapkina, E. L. Bueverova, V. T. Ivashkin

Abstract

Cardiovascular diseases are the main causes of disability and mortality. Atherogenic dyslipidemia is the main risk factor of the cardiovascular problems. Liver takes part in the change of the cholesterol. It is known, that the atherogenous dyslipidemia in majority of such patients is combined to non-alcoholic fatty liver disease. (20-80%). Necessity and safety of application of statins in patients with non-alcoholic fatty liver disease is discussed in the article.

Keywords: atherogenous dyslipidemia, non-alcoholic fatty liver disease, statins

Enhanced external counterpulsation for treatment patients with ischemic heart disease

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Abstract

Objective: The aim of our study was to assess an effectiveness and safety of Enhanced External Counterpulsation (EECP) method in coronary artery disease (CAD) patients' treatment. **Methods:** 42 CAD patients were included: 38 men and 4 women. All of them had stable angina pectoris I-IV class (Canadian Cardiovascular Society): I class – 9 patients, II class – 15 patients, III class – 14 patients, IV class – 4 patients. EECP treatment was performed according to standard protocol using cardiotherapeutic complex EECP® Therapy System Model TS3. Before and after the whole course of EECP treatment physical examination, echocardiography, veloergometry and single-photon emission computed tomography (SPECT) using 99m Tc-methyl-iodine-benzyl-guanydin were performed. The dynamics of angiogenic factors, vascular endothelial growth factor (VEGF) and transforming growth factor- β 1 (TGF- β 1), serum levels were also measured. **Results:** After 35 hours course of EECP procedures angina pectoris episodes decreased in all patients. There was significant increase in exercise test tolerance. When compare the data of SPECT at rest before and after EECP treatment a significant reduction of perfusion defects depth ($p < 0,01$) was found. There were also a significant increase of VEGF and decrease of atrial natriuretic peptide (ANP) levels without any significant changes of TGF- β 1 and brain natriuretic peptide (BNP) levels. **Conclusion:** The EECP method can be used for CAD patients' treatment. The EECP has a positive influence on left ventricular myocardial perfusion.

Keywords: Enhanced external counterpulsation, angiogenesis, ischemic heart disease

Extracorporeal treatment of Refractory dyslipidemia

G. A. Konovalov, V. V. Kukharchuk, S. N. Pokrovskiy

Abstract

In the article you can find risk factors of the development of coronary heart disease, and reasons of refractory for the traditional medical treatment dyslipidemia. Author gives his own data and the survey of literature about extracorporeal methods of treatment for refractory dyslipidemia and complications of atherosclerosis. Author also gives the results of using this methods of treatment and displays for using it in a clinical practice.

Keywords: Atherosclerosis. Refractory dyslipidemia. Extracorporeal methods of treatment. Cascade plasmofiltration. Immunoabsorption. Heparin LDL precipitation (HELP). LDL-apheresis. Lp(a)-apheresis. Plasmapheresis.

Ezetimibe in clinical practice

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Abstract

Cholesterol hypothesis plays an important role in understanding of atherosclerotic process. Now it is proved that increased low-density lipoprotein cholesterol (LDL-C) levels increase risk of coronary artery disease. And there is a direct connection between a decrease of total cholesterol and LDL-C levels and a decrease of cardiovascular risk. Nowadays statins are the medications of choice for hyperlipidemia treatment. However a monotherapy with statin sometimes is not enough for reaching target cholesterol goals, in this case a combination of hypolipidemic medications can be used. A combination of statin with ezetimibe can be recommended as highly effective in achieving cholesterol targets by having an impact on both mechanisms which determine cholesterol level in the human blood (intestine absorption and hepatic synthesis). The presence of pleiotropic effects of ezetimibe and its ability to influence on patients' prognosis are still unknown and are the subjects of investigation. These data will help to determine the place of ezetimibe in clinical practice.

Keywords: atherosclerosis, hyperlipidemia, statin, ezetimibe.

High doses of atorvastatin in patients with ischemic heart disease

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