endothelial cells proliferate, but the internal elastic lamina remains intact. In an intermediate phase, thrombi organize and recanalize incompletely; the media is preserved but may be infiltrated with fibroblasts. In older lesions, periarterial fibrosis may occur, sometimes affecting the adjacent vein and nerve.

Symptoms and signs include claudication, non-healing foot ulcers, rest pain, and gangrene. Diagnosis confirmed by clinical findings, noninvasive vascular testing, angiography, and exclusion of other causes. Treatment is cessation of tobacco use. Prognosis is excellent when tobacco use is stopped.

**Conclusion:** General practitioners should have alertness of such condition; especially in patients with peripheral artery diseases. Symptoms of TA may disappear if the person stops tobacco use. Continuing of smoking can lead to repeated amputations of affected fingers or toes.

**Zaytseva M.**

## OPTIMIZING TREATMENT OF HYPERTENSIVE PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE BASED ON POLYMORPHISM OF AGTR1 GENE

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**Introduction.** Arterial hypertension (AH) is a major component of the global health burden, due to its association with stroke and cardiovascular diseases. Furthermore, non-alcoholic fatty liver disease (NAFLD) has become the most prevalent liver disease worldwide. It is present in up to one-third of the general population. Evidence is now accumulating that NADFL may serve as a predictor of AH. It is not yet clear how treatment of NAFLD will modulate the risk of AH. The importance of genetic changes in etiology and pathogenesis of NAFLD has been increasingly recognized. Nevertheless, the exact mechanism is largely unknown.

Many studies support the fact that AH is a complex disease resulting from the interactions of genes and environmental factors. Therefore, the identification of new susceptibility genes would help further elucidate the underlying molecular mechanisms of AH. The rennin-angiotensin system (RAS) has been suggested to play an important role in the regulation of blood pressure and pathogenesis of AH. Thus, polymorphisms of RAS genes that encode angiotensinogen, angiotensin-converting enzyme and angiotensinogen II type-1 receptor (AGTR1) have been extensively investigated as potential loci for AH. Several meta-analyses have indicated that A1166C polymorphism in the AGTR1 gene is associated with AH.

Recent studies have demonstrated a crucial role of angiotensin II in the pathogenesis of hepatic fibrosis. Administration of an antagonist of angiotensin decreased hepatic fibrosis in rats. These observations suggest that therapeutic use of an angiotensin II receptor antagonist is safe and efficacious for the treatment of NAFLD. Furthermore, studies are urgently needed to establish the pathophysiology of AH with NAFLD and the benefit of early diagnosis and treatment of AH in patients with NAFLD.

**Objective** is to develop an optimal scheme of treatment of AH in combination with NAFLD based on the study of polymorphism of AGTR1 (A1166C) gene.

**Material and methods.** 90 patients with AH combined with NAFLD is to be examined. Control group of 20 healthy individuals will be included. It will be used subjective (complaints, history of disease and life) and objective methods (inspection, palpation, percussion, auscultation, measurement of blood pressure), anthropometric indices – BMI for the study. Clinical and laboratory research involves study of such indicators, as standard biochemical methods determined by the concentration of total cholesterol, triglycerides and cholesterol HDL and LDL, the activity of hepatic transaminases, alkaline phosphatase content of the serum blood bilirubin. Insulin resistance determined by HOMA modelling. Clinical and instrumental examination for determination of structural changes in the liver and heart sonography will be conducted by these authorities; clinical and instrumental examination by Doppler echocardiography - the regime will be held to all thematic patients, as well as daily monitoring of blood pressure; cuff test and velocity of pulse waves. To determine allelic polymorphism AGTR1 (A1166C) gene the molecular-genetic testing (polymerase chain reaction) will be conducted.

**Conclusion.** The progress of AH in patients with NAFLD, determine the influence of activity of the pathological process in liver at cardiac haemodynamic indicators will be examined. The impact of AGTR1 (A1166C) gene polymorphism will be analyzed in hypertensive patients with NAFLD. We will determine risk groups depending on the genotypes of polymorphic markers AGTR1 gene with most unfavourable course of AH in combination with NAFLD. Also, an optimal algorithm for the treatment of AH in patients with NAFLD considering the identified violations and depending on the polymorphism of the AGTR1 (A1166C) gene will be developed. These will provide the opportunity to increase the efficiency of treatment to reduce the risk of manifestation and progression of disease.

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## THE COMPLEMENT SYSTEM IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND CHRONIC PANCREATITIS

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**The purpose**. The aim of presented study was to examine the state of non-specific immunity in patients with combined course of COPD and chronic pancreatitis (CP).

**Materials and Methods**. Were examined 87 patients (62 individuals with COPD in combination with CP and 25 – with an isolated course of COPD). Standard values obtained when examining 20 healthy persons of similar age and gender. The state of the complement system was evaluated by the determining of content of its components C3 and C5, and the total amount of complement by the method of 50%