

лечения только показатель раннего диастолического наполнения левого желудочка повысился на 3%. Среди других показателей статистически значимые изменения не наблюдались.

По нашему мнению, положительное изменение показателей трансмитрального кровотока у пациентов ХСН с сохраненной ФВ, находящихся под наблюдением, связано с улучшением релаксации, условий раннего и позднего диастолического наполнения ЛЖ за счет уменьшения жесткости миокарда.

Среди пациентов основной группы (табл. 2), принимавших в течение 6 месяцев препараты телмисартана и эплеренона, пациентов с наличием диастолической функции I типа показатель раннего диастолического наполнения ЛЖ в период диастолы значительно повысился на 23%, участие предсердия в период позднего диастолического наполнения сократился на 13,4%, соотношение 2-х фаз диастолического наполнения ЛЖ повысился на 38,6%. У пациентов в основной группе, с наличием диастолической дисфункции левого желудочка II типа, значительного изменения показателей трансмитрального кровотока отмечено не было.

Таким образом, комбинированное применение препаратов телмисартана и эплеренона при лечении пациентов с ХСН с сохраненной ФВ ЛЖ, привело к значительным положительным изменениям показателей трансмитрального кровотока. При сравнении I и II типов диастолической дисфункции ЛЖ, на фоне лечения только у пациентов I типа был выявлен явный положительный эффект.

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## APPLICATION OF APRI INDEX FOR NONINVASIVE EVALUATION OF LIVER FIBROSIS ACTIVITY IN PATIENTS WITH CHRONIC HEPATITIS C

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**Abstract:** *seventy-nine patients, age from forty to forty-five years old, with chronic hepatitis C were examined in the clinic. All the patients studied determined the stage of fibrosis and the severity of the disease with the help of the GenoFibroTest system, an expert system of biochemical blood indices. Modern statistical methods were used to determine the dependence between the stages of fibrosis and APRI. It was found that the APRI value from 0 to 1 corresponds to F0 - F1, more than 1 to F2-F4, respectively.*

**Keywords:** *chronic hepatitis C, noninvasive diagnostics of hepatic fibrosis, APRI.*

# ПРИМЕНЕНИЕ ИНДЕКСА APRI ДЛЯ НЕИНВАЗИВНОЙ ОЦЕНКИ АКТИВНОСТИ ФИБРОЗА ПЕЧЕНИ У БОЛЬНЫХ ХРОНИЧЕСКИМ ГЕПАТИТОМ С

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**Аннотация:** в клинике было обследовано семьдесят девять больных, возрастом от сорока до сорока пяти лет, хроническим гепатитом С. Всем исследованным пациентам определялась стадия фиброза и тяжесть течения болезни с помощью системы GenoFibroTest – экспертная система биохимических показателей крови. Использовались современные статистические методы для выявления зависимости между стадиями фиброза и APRI. Было установлено, что значение APRI от 0 до 1 соответствует F<sub>0</sub> - F<sub>1</sub>, больше 1 соответственно – об F<sub>2</sub>-F<sub>4</sub>.

**Ключевые слова:** хронический гепатит С, неинвазивная диагностика фиброза печени, APRI.

In recent years, the virus of hepatitis C (HCV) infected more than 250 millions of people, that is, about 3.5% of the world's population [1]. An adequate assessment of the state of hepatobiliary system that includes the stage of fibrosis allows to predict the course of chronic hepatitis C (CHC), to prescribe etiotropic and pathogenetic therapy timely. The severity of fibrosis determines prognosis and survival time of patients [2]. Puncture biopsy with subsequent histological examination of the tissues is a reliable method for evaluating some morphological changes in the liver. However, it has a number of significant disadvantages despite of numerous advantages, such as: invasiveness of the procedure, physical and psychological discomfort, risk of complications [3]. Nowadays, using of noninvasive methods for the diagnosis of fibrosis, for example the APRI Index, which has a number of advantages: simplicity, cheapness, informative at any stage of fibrosis is actual. Thereby, the goal of our research was to establish the possibility of using the APRI Index in patients with CHC to determine the activity of liver fibrosis.

Materials and methods. 79 patients with CHC were observed. There were 44 women (55.7%) and 35 men (44.3%). An average age of patients was 41.16%±2.45 years. The etiology of disease was confirmed by the detection of antibodies to HCV in the serum of blood by the method of enzyme immunoassay, RNA-HCV method of polymerase chain reaction.

GenoFibroTest was underwent to all patients, it represents an expert system of biochemical blood counts (determines the content of alpha-2-macroglobulin, haptoglobin, apolipoproteinA1, total bilirubin, GGTP activity (gamma-glutamyltranspeptidase) and ALT-alanine aminotransferase). It includes 4 modules (FibroTest, detection of viral load, polymorphism of the interleukin-28b receptor gene (IL28b), genotyping). The evaluation of the liver fibrosis stage was determined by the FibroTest system. Stages of fibrosis were determined according to the MEAVIR scale: absence of fibrosis (F<sub>0</sub>), portal fibrosis without septoculation, or minimal fibrosis (F<sub>1</sub>), portal fibrosis with single septa, or mild fibrosis (F<sub>2</sub>), multiple portocentral septa without cirrhosis, or severe fibrosis (F<sub>3</sub>), liver cirrhosis (F<sub>4</sub>). The platelet count in the clinical analysis of patients blood and the level of aspartate aminotransferase (AST) in the serum of patients with CHC were accounted to calculate the APRI Test.

Control group consisted of 30 healthy donors. Statistical processing of the data was spent with using of Students's T Test, including for small samples, correlation coefficient and the least squares method. The APRI Test was calculated according to the formula  $APRI = \frac{AST}{platelets} \times 100$ . Results and its discussion.

The stage of fibrosis F<sub>0</sub> was diagnosed in 37 (46,8%), F<sub>1</sub> in 9 (11,39%), F<sub>2</sub> in 13 (16,45%), F<sub>3</sub> in 7 (8,86%), F<sub>4</sub> in 13 (16,45%) patients. Genotypes of HCV1b occurred in 67 (84,8%), 3a – in 11 (13,9%), 2 – in 1 (1,3%) of the examined patients.

The homozygous genotype of the IL-28b C/C receptor was detected in 21 (26,5%), T/T in 16 (20,3%), and heterozygous C/T in 42 (53,2%) of patients.

Studies were conducted to identify the relationship between F and APRI. The correlation coefficient was  $r=0,5509$ , so the direct dependence of an average force was found.

## Conclusions.

The APRI Test may be used as an additional indicator for evaluating the stage of liver fibrosis in patients with CHC. The range of values of this indicator from 0 to 1 indicates about absence or a minimal activity of the process F0-F1, above 1 – about moderate, expressed or severe fibrosis F2-F4.

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## THE USE OF MOXONIDINE IN THE TREATMENT OF HYPERTENSION IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN COMBINATION WITH METABOLIC SYNDROME

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**Abstract:** 60 patients with metabolic syndrome (MS) in combination with COPD of both sexes aged 45,5±1,5 years with average duration of both pathologies of 12,6±2,0 years were examined and treated. According to the prescribed antihypertensive drug, the patients were divided into 2 groups: the main group – among other things, as a antihypertensive therapy received moxogamma at a dose of 0.2 - 0.3 mg/day (40 patients), in the control group in the number of 20 patients, conventional, including antihypertensive therapy was carried out. The results obtained indicate that the selective agonist of II-imidazoline receptors Moxogamma, in addition to the expressed systemic hypotensive effect, in comparison with other groups of hypotensive drugs, due to the dual mechanism of action reduces pulmonary hypertension and the severity of microalbuminuria, which makes its use effective when combined with Chronic obstructive pulmonary disease with MS and arterial hypertension.

**Keywords:** arterial hypertension, chronic obstructive pulmonary disease, metabolic syndrome, hypotensive therapy.