

Міністерство освіти та науки України  
Сумський державний університет  
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# АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА ПРАКТИЧНОЇ МЕДИЦИНИ

Topical Issues of Clinical and Theoretical  
Medicine

**Збірник тез доповідей**  
IV Міжнародної науково-практичної конференції  
Студентів та молодих вчених  
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**ТОМ 2**

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HbA1c,%; vascular sonography with color Doppler apparatus using Toshiba HDI 1500 linear transducer with frequency range 2.5-5 MHz.

Results. Sonographic study in extracranial vessels was conducted by the standard method of measurement and description of CMMs on the back wall at a distance of 1 cm proximal to the bifurcation of the left artery total. Clear division into layers for increased echogenicity and thickness dimensions ( $0.9 \pm 0.2$  mm) were found in 7 patients of group 1 (23%) and 5 (16%) - group 2. Baseline defragmentation with or without intima media thickening was found in 19 (64%) patients of group 1 and 21 (68%) - group 2.

The primary evidence of vascular remodeling of DM and dyslipidemia is thickening IMC and local violation of the integrity of the intima. Over time defragmentation IMC becomes widespread nature, disturbed differentiation into layers. The final step is the formation of atherosclerotic plaques and local hemodynamics abuse.

Conclusions. Using of 20 mg atorvastatin has shown the ability to control the progression of atherosclerosis in its early stages. Structural IMC rating can be used as a marker for early diagnosis of vascular remodeling in diabetic patients and as a criterium for treatment.

### **PHASE-SPACED ECG MARKERS OF PSYCHO-AUTONOMIC MISBALANCE IN HEART FAILURE PATIENTS**

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The combination of psychological and autonomic disturbances is typical in patients suffering on chronic heart failure. The method of phase-spaced ECG gives opportunities to evaluate specific markers that possibly are linked with psycho-autonomic misbalance.

Aim of the study: to detect the specific ECG-markers those are related to the psychosomatic misbalance by using method of phase-ECG analysis.

Methods: all patients were enrolled to the study after the informed consent was signed and all criteria for eligibility obtained. Psychosomatic disorders were diagnosed by using PHQ-SADS Scale. The status of autonomic regulation was detected by method of heart rate variability.

Results: 155 patients were enrolled to the study. After the initial investigations patients were divided into four groups according to presence and/or absence of psychosomatic and autonomic misbalance. The signs of sympathetic overdrive were present in way of reduced heart rate variability in combination with higher rates of T-loop symmetry and T-loop alternations. The presence of depression and/or anxiety has no relations to the heart rate variability parameters in line- and spectral domains, but the changes of T-loop symmetry and T-loop alternations were the same as in the group of patients with sympathetic overdrive. In the case of combined psychosomatic and autonomic misbalances combination more pronounced changes were observed in mental and orthostatic stress-tests.

Conclusions: the presents of depression and/or anxiety resulted in the same changes of T-loop parameters as the presence of sympathetic overdrive. The excessive increase in T-loop symmetry and T-loop alternation in stress-tests is a marker and additional risk factor for heart failure progression.

### **KNOWLEDGE AND AWARENESS OF EPILEPSY AMONG SECONDARY SCHOOL IN ENUGU, SOUTH EAST NIGERIA**

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In Nigeria own study have addressed the problems of knowledge and attitude of epilepsy in African students. However there are persisting gaps in the understanding of these facts especially in relation to how to utilize the existing knowledge for educational interventions.

The major aim of this study was to determine the knowledge and attitude of secondary school students to epilepsy and its treatment that could pose as barriers in the treatment and care of epilepsy patients within the community so that they could constitute targets for educational interventions.

The responses of 107 were analyzed. Majority (90.3 %) had heard of epilepsy as a disorder and most of the students heard about it from the electronic media (television, films and radio) (32.9 %) or from parents and family members (25.8 %). Epilepsy was considered a psychiatric disorder by 50 %, an infectious disease by 41.6 % and due to some natural causes (neurological) by 41 %. On the question “who (where) is best to treat people living with epilepsy?”, 64.1 % considered that doctors (orthodox medicine) and herbalists (traditional healing) were to treat epilepsy. A small percentage (6.9 %) believed the herbal (traditional medicine) to be the best remedy. No one accepted that prayers alone could cure epilepsy. On attitude, 62.5 % said they would not keep a friend with epilepsy, 65.5 % would not play with someone with epilepsy, 81.7 % would not marry someone with epilepsy. Only 36.5 % of the students disagreed that people with epilepsy should marry or have children.

Most secondary school students exhibit a poor knowledge and attitude among secondary school students in Enugu South East Nigeria. Efforts should be made to include the teaching of common neurological disorders in schools.

## FEATURES OF DYSLIPIDEMIA IN PATIENTS WITH HYPOTHYROIDISM COMBINED WITH NONALCOHOLIC FATTY LIVER DISEASE

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**Background.** The problem of nonalcoholic fatty liver disease (NAFLD) is very important nowadays. On the one hand, the characteristic of it is wide spread and on the other hand – there are a lot of factual material about the pathogenic mechanisms of development. Decompensated hypothyroidism leads to dyslipidemia in any age.

The aim of this study is the definition of the peculiarities of dyslipidemia for patients with the combination of hypothyroidism and NAFLD.

**Participants and methods.** The study included 64 patients which were divided in two groups. There are 30 patients with NAFLD in the first group and 34 patients with hypothyroidism and NAFLD in the second group. For determination the degree of fibrosis we conducted the test “FibroMax”. It was calculated with the help of formula:  $f = 4.467 \times \log[\alpha 2\text{-macroglobulin(g/l)}] \log[\text{haptoglobin(g/l)}] + 1.017 \times \log[\text{GGT(U/L)}] + 0.0281 \times [\text{years}] + 1.737 \times \log[\text{bilirubin(mmol/l)}] - 1.184 \times [\text{apolipo-protein A1(g/l)}] + 0.301 \times \text{sex}(\text{female}=0, \text{male}=1) - 5.540$ . The ultrasound of the abdomen and thyroid gland were prescribed for all patients.

**Results.** We define the increasing of the levels of total cholesterol (TC), triglycerides (TG), low density lipoprotein (LDL) in both study groups. Moreover the patients from the second group had more obliqueness (in the 2 group the level of TC was  $(7,3 \pm 1,2)$  mmol/l, TG level –  $(3,2 \pm 0,8)$  mmol/l, LDL lever –  $(4,07 \pm 1,02)$  mmol/l, in the 1 group the levels of TC were  $(6,2 \pm 1,4)$  mmol/l, of TG –  $(3,1 \pm 0,6)$  mmol/l, of LDL –  $(3,99 \pm 0,6)$  mmol/l. After ultrasound research we found that patients from both groups had steatohepatosis. After conducting the test “FibroMax” we found, that patients in the 2 group had the next stage of fibrosis: F0-F1 - 21 patients (61,7%), F1-F2 - 9 patients (26,4%), F3 - 4 patients (11, 9%); patients in the 1group: F0-F1 - 15 patients (50%), F1 - 8 patients (27%), F1-F2 - 5 patients (23%).

**Conclusions.** Finally, patients with hypothyroidism had complex metabolic disorders, which caused the development of NAFLD. It is confirmed by the results of "FibroMax" test and definition of laboratory parameters. Therefore, timely diagnosis and correction of the hypothyroidism can prevent the development of NAFLD, which is an early predictor of complications of cardio - vascular diseases.