

Міністерство освіти та науки України  
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Медичний інституту



# АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА ПРАКТИЧНОЇ МЕДИЦИНИ

Topical Issues of Clinical and Theoretical  
Medicine

**Збірник тез доповідей**  
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BMI and WHR. Analyzing PAI-1 level on the 14<sup>th</sup> day, it was recorded that in the patients with MTBI and NBW the PAI-1 level came within normal limits (according to the values in the control group); the patients with obesity and overweight still had high values –level of PAI-1 was 1.2 times higher than that in the control group ( $61.8 \pm 7.22$  and  $52.3 \pm 0.86$  ng/ml respectively,  $p=0.0001$ ).

According to the results of the study, we can make a conclusion as for the association between changes in the plasma PAI-1 levels and body weight: PAI-1 values were significantly higher in the patients and control with obesity than in the patients with NBW, thus we can suggest the influence of overweight and obesity upon MTBI course.

## COMPARISON BETWEEN POVERTY IN NIGERIA AND UKRAINE

*Anaga S.I., 4<sup>th</sup> year student*

*Scientific supervisor – Smiianov Ye.V.*

*Sumy State University, Department of Family and Social Medicine*

Poverty is such an important topic in the society and influences on the rate of progress of any nation.

Nigeria is a country in West Africa, 20<sup>th</sup> largest economy in the world worth more than 500 billion dollars. However the issue of poverty is still rising. This is due to the high rate of corruption in the political system, interethnic conflicts and inequality in income to mention but a few.

Ukraine is a country in Eastern Europe with the 46<sup>th</sup> largest population in the world and has an economy which is quite difficult to explain. From the year 2014 due to political crisis and conflicts on land ownership, the economy of the nation has suffered greatly. Solutions to the issues of poverty in the countries:

Creation of job opportunities. Job opportunities should be created with substantial wages to meet the needs of the people.

Improvement in political system. Routine investigations should be carried out to unveil hidden cases of fraud and misappropriation of funds by leaders and other people in power even in the financial sector.

Creation of Non-Governmental Organizations. They can reach out to the rural areas where poverty is higher and help out with any basic amenities which are lacking in the area.

Conflict resolution. Conflicts whether on a domestic (Nigeria) or international level (Ukraine) should be settled amicably without necessarily influencing on the economy of the nations.

Budgeting. Most importantly the country's funds should be allocated properly. Budgeting well would make it easier to hold people accountable in cases of failed duties.

Education. It will help encourage saving and also ensure a safety net for people in periods of crisis. Also formal education increases the workforce as people are equipped with skills and knowledge to survive in life.

In 2013 the human development index of Ukraine was 0,734, which is 0,032 more than in 1996 despite the political instability. It shows a positive influence of health care system reforms, that influence greatly on the index.

Having analyzed the above data it can be assumed that Ukrainian experience in health care reforms can be used in Nigeria. This experience with the above mentioned measures to improve the standard of living can increase the human development index (which is 0.504 for today) and to improve the quality of health care.

## ASSOCIATION BETWEEN SERUM URIC ACID AND TYPE 2 DIABETES

*Bamisile Ayodeji Segu*

*Scientific adviser – G.A. Fadieieva, MD*

*Sumy State University, Department of Internal Medicine postgraduate education*

The results of population-based studies suggest that serum uric acid (UA) is a strong and independent risk factor for diabetes complications. The aim of our study to investigate the association between serum UA level and type 2 diabetes (T2D).

**Methods:** The diagnosis of T2D were based on American diabetes association criteria (2012). The 1<sup>st</sup> group included 26 patients with optimal control (glycosylated haemoglobin 7-7.5%) of T2D, the II group – 20 healthy persons (control group). All patients underwent medical examination, which included height, weight, calculation of body mass index (BMI). Patients were evaluated for lipid profile (triglyceride, low-density lipoprotein (LDL) cholesterol), serum UA, HOMA-index, serum creatinine. Hyperuricemia was defined as serum uric acid >420  $\mu\text{mol/L}$  in men and >360  $\mu\text{mol/L}$  in women, respectively.

**Results:** The mean age of patients of the 1<sup>st</sup> group was  $58.5 \pm 1.24$  years, duration of T2D ( $6 \pm 1.08$ ) years, BMI ( $29.0 \pm 0.55$ )  $\text{kg/m}^2$ . Patients with T2D had UA ( $305.4 \pm 0.17$ )  $\mu\text{mol/l}$  in comparing with control group ( $234.8 \pm 0.25$ )  $\mu\text{mol/l}$  ( $p < 0.001$ ). The prevalence of hyperuricemia was 20% and increased with increasing BMI ( $r = 0.25$ ;  $p < 0.05$ ).

Higher serum uric acid levels in diabetic patients of the 1<sup>st</sup> group is accompanied by elevated triglyceride ( $3.1 \pm 0.34$ )  $\text{mmol/l}$ , LDL-cholesterol ( $2.9 \pm 0.25$ )  $\text{mmol/l}$  HOMA-index, higher serum creatinine ( $p < 0.05$ ).

Serum uric acid level was positively correlated with serum triglyceride and serum creatinine

**Conclusion:** The prevalence of hyperuricemia in patients with T2D was increased. Higher serum uric acid levels lead to atherogenic dyslipidemia increasing the risk of early atherosclerosis in diabetic patients.

## ETIOLOGICAL STRUCTURE AND ANTIMICROBIAL RESISTANCE IN PATHOGENS CAUSING URINARY TRACT INFECTIONS

*Bezruk T.O., Bezruk V.V.*

*Higher State Educational Institution of Ukraine*

*«Bukovinian State Medical University»*

*Department of Internal Medicine,*

*Department of Pediatrics, Neonatology and Perinatology of Medicine*

There is an increase of the number of patients with urinary tract infections in Ukraine.

The objective is the definition of the range of sensitivity to the antibiotics of major groups of pathogens of the urinary system among the population of the Chernivtsi region.

In order to conduct an accurate bacteriological study 2828 urine samples of patients of medical institutions in the Chernivtsi region were analyzed during 2009 – 2013. Our aim was the verification of the diagnosis «urinary tract infections» (UTI).

The total amount of 801 strains of bacteria and fungi was extracted according to the etiologically significant quantities. The sensitivity of the extracted strains was found concerning 24 antibiotics. There are differences in the species composition of the urinary system infection agents between sexes, e.g. in female patients. *E.coli* is extracted more often, and in male patients the same concerns bacteria of the genus *Proteus*. The differences between sexes in the composition of the resident microflora of urine do exist as the strains of *E.coli* are extracted more often among female patients, which may be a prerequisite for the top spot of the pathogen in the etiology of infections of the urinary system among women and girls. The study suggests that the sensitivity to antibiotics of the main group of the pathogens of the urinary system infections (except genus *Proteus*) was depended on the age and sex of patients. Strains of bacteria which were belonged to the major groups of pathogens of the urinary system (*Enterobacteriaceae*, *Pseudomonas*) are highly sensitive to carbapenems and aminoglycosides. The sensitivity to cephalosporins of the 3<sup>rd</sup>-4<sup>th</sup> generations (to a greater extent in strains extracted from female patients) and fluoroquinolones remains relatively high.

**Conclusion.** Common signs of the urinary tract pathology among the population of Chernivtsi and the Chernivtsi region were revealed. The using of penicillins, cephalosporins of the first and second generations, tetracyclines, kanamycin and chloramphenicol without bacteriological urine analysis and determination of sensitivity to antibiotics is inappropriate.