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Матеріали  
науково-практичної інтернет-конференції з міжнародною участю

# **МЕТАБОЛІЧНИЙ СИНДРОМ У ЗАГАЛЬНОКЛІНІЧНІЙ ПРАКТИЦІ**

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Метаболічний синдром у загальноклінічній практиці // Матеріали науково-практичної інтернет-конференції з міжнародною участю. – Чернівці: Медуніверситет, 2016. – 58 с.

У збірнику представлено матеріали науково-практичної інтернет-конференції «Метаболічний синдром у загальноклінічній практиці» (Чернівці, 8-10.06.2016р.) зі стилістикою та орфографією в авторській редакції. Публікації присвячені фундаментальним аспектам епідеміології, патогенезу, імунопатології метаболічного синдрому, питанням коморбідності метаболічного синдрому та захворювань внутрішніх органів, сучасних можливостей його діагностики та лікування, персоніфікованого підходу до менеджменту метаболічного синдрому.

Загальна редакція – доктор медичних наук, професор Пашковська Н.В.  
Редактор – кандидат медичних наук, доцент Оленович О.А.

**Шишко Е.И., Мохорт Т.В.**

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**Шишко О.Н., Мохорт Т.В., Константинова Е.Э.,**

**Вуко И.В., Цапаева Н.Л.**

Влияние различных факторов метаболического синдрома на изменение показателей прооксидантно-антиоксидантного статуса и микроциркуляции бульбарной конъюнктивы у пациентов с предиабетом и сахарным диабетом 2 типа

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followed by the decrease of high-density lipoproteins cholesterol as compared with those indices in healthy individuals ( $P<0,05$ ). The highest figure was seen in patients with DN stage IV and obesity II degree ( $P<0,05$ ). Increased levels of  $\beta_2$ -MG in blood and urine were found in patients with DN ( $P<0,05$ ). After treatment with simvastatin lipid spectrum parameters were normalized all patients or tended to the levels of healthy individuals, blood and urine levels of  $\beta_2$ -MG were normalized of patients with DN stage III and significantly decreased in patients with DN stage IV.

#### **Conclusions:**

1. Patients with diabetic nephropathy have substantial increase of  $\beta_2$ -microglobulin level in the blood and urine and dyslipidemia with increased low-density lipoproteins.

2. As a result of three months therapy with simvastatin the significant reduction of  $\beta_2$ -microglobulin level in the urine and blood and normalization of blood lipid spectrum was observed in the examined patients ( $P<0,05$ ).

## **CHANGES IN RENAL INTERSTITIAL TISSUE IN EXPERIMENTAL ANIMALS WITH DIABETES MELLITUS**

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**Introduction.** Diabetes mellitus (DM) and diabetic nephropathy as one of its serious complications, is a world leader among the causes of terminal renal failure. DM affects the renal vessels, arteries, renal tubules and glomeruli. The disease affects 75% of people suffering from diabetes.

**Objective of the study.** To determine quantitative parameters of the ratio between the amino and carboxyl groups of proteins in different structures of kidneys of experimental rats in early stages of streptozotocin-induced diabetes using a histochemical technique.

**Material and methods.** The experiment was conducted on 30 male mature nonlinear albino rats (0.17-0,20 kg). They were divided into four groups. I – control group (n=7), was on the standard mode of feeding, lighting and housing. The experimental groups of animals – II (n=8), III (n=8) and IV (n=7) – were administered streptozotocin intraperitoneally at a dose of 70 mg/kg. In the II group of animals the relevant research were conducted 11 days after streptozotocin

administration; the performance of the animals in the III group was studied 21 days later, in IV one – after 31 days, respectively.

The animals were slaughtered under light ether anesthesia, in compliance with the EEC Directive №609 (1986) and MPH of Ukraine №690 of 23.09.2009. The quantitative assessment of proteins in histochemical preparations stained with bromphenol blue by Mikel Calvo technique, was performed by a computer-based microspectrophotometry according to the ratio R/B. Differences between the groups of research were performed by Student's test.

**Results.** The R/B ratio in subendothelial basal membrane of the capillaries in interstices of cortex, medulla and papilla of the kidneys was: in intact animals –  $1,04 \pm 0,010$ , in experimental animals on the 11<sup>th</sup> day of the experiment –  $1,04 \pm 0,014$ , on the 21<sup>st</sup> day –  $1,29 \pm 0,016$ , on the 31<sup>st</sup> day –  $1,31 \pm 0,017$  respectively.

In endothelial cells of the capillaries of interstices in cortex, medulla and papilla of the kidneys the ratio R/B was: in intact animals –  $1,14 \pm 0,017$ , in experimental animals on the 11<sup>th</sup> day of the experiment –  $1,16 \pm 0,019$ , on the 21<sup>st</sup> day –  $1,40 \pm 0,016$ , on the 31<sup>st</sup> day –  $1,44 \pm 0,017$  respectively.

**Conclusion.** The given data indicate that both – subendothelial basal membrane and the endothelium of blood vessels in interstices of renal cortex, medulla and papilla react in terms similar to subendothelial basal membrane and the endothelium of the kidney glomeruli – on the 21<sup>st</sup> day of experiment.

## **INFLUENCE OF LIPID METABOLISM DISORDERS ON THE DEVELOPMENT OF RENAL DYSFUNCTION IN PATIENTS WITH HYPOTHYROIDISM**

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**Introduction.** Nowadays a special attention is paid to various non-immune factors of kidney damage. Being one of the symptoms of hypothyroidism, hyperlipidemia is known to belong to such factors, causing nephropathy. However, existing literary data regarding the mechanisms of the development of renal dysfunction under the condition of thyroid hormone deficiency remains unclear and contradictory.