

Thus, aldosterone synthase gene CYP11B2 (-344C/T) associates with high risk of EAH in Bukovyna region. T-allele increased risk of CKD in hypertensive population almost 1.5 times as much, especially in women.

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DEPENDENCE OF LIPID METABOLISM ON POLYMORPHIC VARIANTS OF THE GNB3 GENE IN PATIENTS WITH PRIMARY ARTERIAL HYPERTENSION

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Primary (essential) hypertension (PH) is the most common cause of left ventricular hypertrophy (LVH) and is often associated with metabolic disorders. LVH and dyslipidemia are essential risk factors and indicators of morbidity and mortality, both cardiovascular and general ones.

The aim of the study was to analyze dependence of lipid panel parameters on polymorphic variants of the guanine nucleotide binding protein (G-protein) β_3 subunit gene (GN 3) C825T (GN 3, 825C>T; dbSNP: rs5443) in patients with PH.

A cross-sectional study involved 72 patients with PH stage II, 1-3 degrees of blood pressure, high and very high cardiovascular risk. There were 29,16% (21) men, 70,84% (51) women among the patients. The average age of patients was $59,87 \pm 7,98$. The control group consisted of 48 healthy individuals of the average age ($49,13 \pm 6,28$) and sex distribution (62,5% of women, 37,5% of men). GN 3 C825T polymorphism was investigated by PRL in real time. To establish LVH, all patients had undergone echocardiography. LVH was calculated by LVMM (according to the Penn Convention) and LVMMI. To evaluate LVH, LVMMI were taken 115 g/m^2 in men, 95 g/m^2 in women (ESC, ESH 2018). The lipid panel parameters, such as: TC (Total cholesterol), G (Triglycerides), LDL-C (Low-density lipoprotein cholesterol), HDL-C (High-density lipoprotein cholesterol) were investigated in blood plasma, using diagnostic kits of the company "Accent 200" (Poland). The atherogenic index (IA) was calculated by the formula: $(\text{TC} - \text{HDL-C}) / \text{HDL-C}$.

As a result, the following lipid panel parameters in carriers of the C-allele of the GNB3 gene have been found: TC – $5,50 \pm 0,79 \text{ mmol/L}$, G – $2,10 \pm 0,8 \text{ mmol/L}$, HDL-C – $1,22 \pm 0,22 \text{ mmol/L}$, LDL-C – $4,03 \pm 0,76 \text{ mmol/L}$, IA – $3,66 \pm 0,84$. In TC-genotype carriers, patients with EH the concentration of TC was $5,82 \pm 1,15 \text{ mmol/L}$ ($p_{CC} > 0,05$), G – $1,73 \pm 0,55 \text{ mmol/L}$ ($p_{CC} > 0,05$), HDL-C – $1,30 \pm 0,21 \text{ mmol/L}$ ($p_{CC} > 0,05$); LDL-C – $4,39 \pm 1,07 \text{ mmol/L}$ ($p_{CC} > 0,05$), IA – $3,61 \pm 0,95$ ($p_{CC} > 0,05$). In C-genotype carriers, patients with EH the concentration of TC was $6,6 \pm 0,64 \text{ mmol/L}$, TG – $2,6 \pm 1,27 \text{ mmol/L}$, which was higher than in C-allele carriers according to TC – by 20,0% ($p_{CC} > 0,05$) 13,79% ($p_{TC} = 0,016$), according to TG – by 23,81% ($p_{CC} > 0,05$) 52,94% ($p_{TC} = 0,038$), respectively. The rest parameters of lipid panel have not differed significantly between genotype carriers and in homozygous carriers of the mutation T-allele had been HDL-C $1,3 \pm 0,05 \text{ mmol/L}$ ($p_{CC,TC} > 0,05$), LDL-C $4,7 \pm 0,69 \text{ mmol/L}$ ($p_{CC,TC} > 0,05$), IA $4,0 \pm 0,69$ ($p_{CC,TC} > 0,05$).

Thus, the lipid metabolism in patients with EH does not depend on polymorphic variants of the the guanine nucleotide binding protein (G-protein) β_3 subunit gene (GN 3, 825C>T; rs5443).

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EXPERIENCE OF PROBIOTICS USE IN NEWBORN WITH PERINATAL PATHOLOGY IN DYSBIOTIC INTESTINAL DISORDERS

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One of the most important mechanisms for the adaptation of newborns to the environmental conditions is the formation of non-specific protective barriers of the body, which are also physiological microbial ecosystems. The most common pathological conditions of the gastrointestinal tract in newborns are a violation of the composition and function of the colon microflora, which arise under the influence of perinatal factors and is a prerequisite for the development of inflammatory bowel diseases in the future. Alpha-1-antitrypsin (α_1 -antitrypsin)

and secretory IgA (sIgA) are indicators of the inflammatory process in the intestinal tract. Increased values are observed during exacerbations, inflammations, systemic diseases. Secretory immunoglobulin A is the most important part of local immunity against intestinal antigens. An increased IgA level confirms an active immune response in the intestinal mucosa, a low level leads to a reduced immune defense with a reduced colonization resistance, in addition, high antibody titers against food allergens are often found.

The aim of our study was to investigate the possibility of using the drug Bifi-forms Baby® in newborns with clinical manifestations of perinatal pathology and dysbiotic intestinal disorders in order to prevent pathology. The main clinical observation group consisted of 30 full-term infants with severe perinatal pathology, the control group consisted of 30 healthy newborns. Determination of α -1-antitrypsin, albumin and secretory IgA (sIgA) in feces was performed using enzyme-linked immunosorbent assay (ELISA). Statistical processing of the obtained data was performed on a personal computer using the statistical program for medical and biological research "STATGRAPHICS" Plus 5.

The results of the study revealed changes in α -1-antitrypsin and albumin in the first portion of meconium in newborns. Namely, if in the control group the level of α -1-antitrypsin was 99.4 ± 4.97 mg / g, the level of albumin - 3.2 ± 0.16 mg / g, in children who had severe perinatal pathology - indicators were significantly higher and reached, respectively, the level of α -1-antitrypsin 1128.4 ± 56.42 mg / l, the level of albumin - 56.3 ± 2.82 mg / l, $p < 0,05$. According to our data, the level of sIgA in the feces of newborns who showed signs of intestinal dysfunction was slightly higher compared to healthy newborns - 534.3 ± 26.72 mg / g and 373.8 ± 18.69 mg / g, respectively. $p > 0.05$. In our opinion, the increase in sIgA levels in newborns with perinatal pathology may be associated with disorders of the formation of the biofilm characteristic of this stage of microbiocenosis formation, with a predominance of opportunistic pathogens. In case of intestinal disorders in children with vegetative-visceral dysfunctions on the background of perinatal pathology, along with the usual directions of intensive care, during the early neonatal period was used the drug Bifi-form Baby®, which is a combined probiotic, which includes certified probiotics. strains of Bifidobacterium BB-12 and Streptococcus thermophilus TH-4 in oil suspension. The duration of the course was 14 days. Against the background of the treatment in newborns on the 7th day of life there was a normalization of the functional state of the intestine with the leveling of signs of the vegetative-visceral syndrome.

The obtained data indicate that against the background of treatment with the drug Bifi-form Baby® in newborns there was a significant decrease in the level of α -1-antitrypsin (83.5 ± 4.17 mg / g vs. 732.6 ± 36.63 mg / g) and albumin. in feces (4.8 ± 0.24 mg / g vs. 19.2 ± 0.96 mg / g), however, the content remains higher than in healthy newborns. The level of sIgA also tends to decrease (396.2 ± 19.81 mg / g vs. 634.8 ± 31.74 mg / g), but compared to the control group, it is higher.

Therefore, early diagnosis use of probiotics of disorders of the functional condition of the intestine in newborns will improve the condition of patients and prevent the development of chronic intestinal diseases in the future.