

COMPARE RESULTS OF HEMOSTASIS DISORDERS IN PATIENTS WITH METABOLIC SYNDROME

Allamurodova Feruza Yakubovna

Bukhara State Medical Institute, Bukhara, Uzbekistan

ANNOTATION

Metabolic syndrome is a complex symptom complex, manifested together with arterial hypertension, abdominal-visceral obesity, dyslipidemia, impaired glucose tolerance, insulin resistance, hyperinsulinemia, hyperuricemia, microalbuminuria, hemostasis disorders.

In the study, laboratory analyzes of urban and rural residents and their deviations from the norm were analyzed, and the importance of the place of residence of the population in the development and complications of metabolic syndrome was studied.

Keywords. Metabolic syndrome, diabetes, hypertension, hepatomegaly, hypercoagulation.

METABOLIK SINDROMI BEMORLARDA GEMOSTAZ BUZILISHI NATIJALARINI BAHOLASH

Allamurodova Feruza Yakubovna

Buxoro davlat tibbiyot instituti, Buxoro, O'zbekiston

ANNOTATSIYA

Metabolik sindrom murakkab simptomlar majmuasi bo'lib, arterial gipertenziya, qorin bo'shlig'i-visseral semizlik, dislipidemiya, buzilgan glyukoza bardoshlik, insulin qarshiligi, giperinsulinemiya, giperurikemiya, mikroalbuminuriya, gemostazning buzilishi bilan birga namoyon bo'ladi. Tadqiqotda shahar va qishloq aholisining laboratoriya tahlillari va ularning me'yordan chetga chiqishi tahlil qilinib, metabolik sindromning rivojlanishi va asoratlarida aholi yashash joyining ahamiyati o'rganildi.

Kalit so'zlar: Metabolik sindrom, diabet, gipertenziya, gepatomegaliya, giperkoagulyatsiya.

СРАВНЕНИЕ РЕЗУЛЬТАТЫ НАРУШЕНИЙ ГЕМОСТАЗА У БОЛЬНЫХ С МЕТАБОЛИЧЕСКИМ СИНДРОМОМ

Алламуродова Феруза Якубовна

Бухарский государственный медицинский институт, Бухара, Узбекистан

АННОТАЦИЯ

Метаболический синдром представляет собой сложный симптомокомплекс, проявляющийся совместно с артериальной гипертензией, абдоминально-висцеральным ожирением, дислипидемией, нарушением толерантности к глюкозе, инсулинорезистентностью, гиперинсулинемией, гиперурикемией, микроальбуминурией, нарушениями гемостаза. В ходе исследования были проанализированы лабораторные анализы городских и сельских жителей и их отклонения от нормы, а также изучено

значение места проживания населения в развитии и осложнениях метаболического синдрома.

Ключевые слова. Метаболический синдром, сахарный диабет, артериальная гипертензия, гепатомегалия, гиперкоагуляция.

RESEARCH RELEVANCE

Metabolic syndrome is one of the most important problems of medicine. This is because, firstly, this syndrome occurs in 25-35% of the world's population, [1] and secondly, compared to patients without metabolic syndrome, patients with this syndrome have a 2-3 times greater risk of death from cardiovascular diseases, type 2 and the risk of developing diabetes is 5-9 times higher. [2,9] Metabolic syndrome is a complex symptom complex, manifested together with arterial hypertension, abdominal-visceral obesity, dyslipidemia, impaired glucose tolerance, insulin resistance, hyperinsulinemia, hyperuricemia, microalbuminuria, hemostasis disorders. [3] In 92% of cases, arterial hypertension is found to be combined with 2-3 of the above pathologies. Arterial hypertension shortens life expectancy in men by 8-10 years, and in women it reduces to 5-6 years. All of these increase coronary risk. [4,5]

Also, every 10% increase in body mass is accompanied by an increase in plasma cholesterol concentration by 0.3 mmol/l; every extra 4.5 kg of body weight increases systolic blood pressure by 4 mm Hg in men and 4.2 mm Hg in women. leads to an increase to The combination of obesity with arterial hypertension increases the risk of ischemic heart disease by 2-3 times, and the risk of cerebral stroke by 7 times. In addition, prothrombotic and fibrinolytic activity of blood is disturbed in patients with metabolic syndrome. In patients with metabolic syndrome, the effect of platelets on this syndrome is associated with hyperaggregation of platelets, resulting in disturbances in hemodynamic factors, an increase in the level of fibrinogen and blood clotting factors leading to hypercoagulation, and hypofibrinolysis.

In fact, hemostasis is a biological system that ensures the liquid state of blood, the structural integrity of the vascular wall, stops and prevents bleeding, and quickly forms a thrombus when blood vessels are injured. [6,8] The process of hemostasis can be divided into several stages that complement each other. These stages are manifested in the narrowing of local blood vessels, adhesion of platelets to the injured blood vessel wall, formation of platelet aggregates and their fusion with fibrin. Also, the restoration of blood flow is completed by the process of fibrinolysis. During the implementation of each stage, there is a mutual relationship between the blood and the vascular wall. [7,10]

The dependence of changes in the hemostasis system on living conditions in patients with metabolic syndrome is one of the issues that have not been fully studied yet. Especially in the conditions of Uzbekistan, several questions remain open regarding the level of morbidity of urban and rural residents with metabolic syndrome and the specificity of changes in various systems resulting from it.

THE AIM

Determining the specificity of changes in the hemostasis urban and rural patients with metabolic syndrom.

RESEARCH MATERIAL AND METHODS

60 patients with metabolic syndrome who applied to Kogon city and district medical associations were selected for the study (30 from urban and 30 from rural residents). Each patient underwent laboratory tests such as anthropometry, general blood analysis, general urinalysis, biochemical blood analysis, coagulogram, glycohemoglobin amount, lipid spectrum, electrocardiography, ultrasound examination (liver, kidney), ophthalmoscopy.

RESEARCH RESULTS

The patients selected for the study were divided into several groups according to age, sex, level of arterial hypertension, type of diabetes, hepatomegaly. According to him, 3 people aged 40-50, 20 people aged 51-60, 37 people aged 61 and older. 53% of them (32 people) were women. 22 patients had 1st degree, 30 had 2nd degree, and 8 had 3rd degree arterial hypertension. Type II diabetes was detected in 7 patients, hepatomegaly was detected in 19 patients as a result of objective and instrumental examination. (table 1.)

Table 1. Demographic data of urban and rural population

Signs	Age			Sex		Arterial hypertension			Diabetes		Hepatomegaly
	40-50	51-60	61 <	A woman	Male	Level 1	Level 2	Level 3	Type I	Type II	
City dwellers	2	10	18	14	16	10	14	6	-	5	11
Villagers	1	10	19	18	12	12	16	2	-	2	8
Total:	3	20	37	32	28	22	30	8	-	7	19

In addition, the results of calculating the body weight index (BMI) can be divided into 4 groups: 1. There are 4 patients living in the city and 3 patients living in the countryside with a BMI of 25-29; 2. 23 of the patients with TVI 30-35 live in the city, 16 live in the village; 3. Of the patients with TVI 36-39, 8 are from the city, and 3 are from the countryside; 4. 2 out of 3 patients with TVI 40 and above live in the city. (Figure 1)

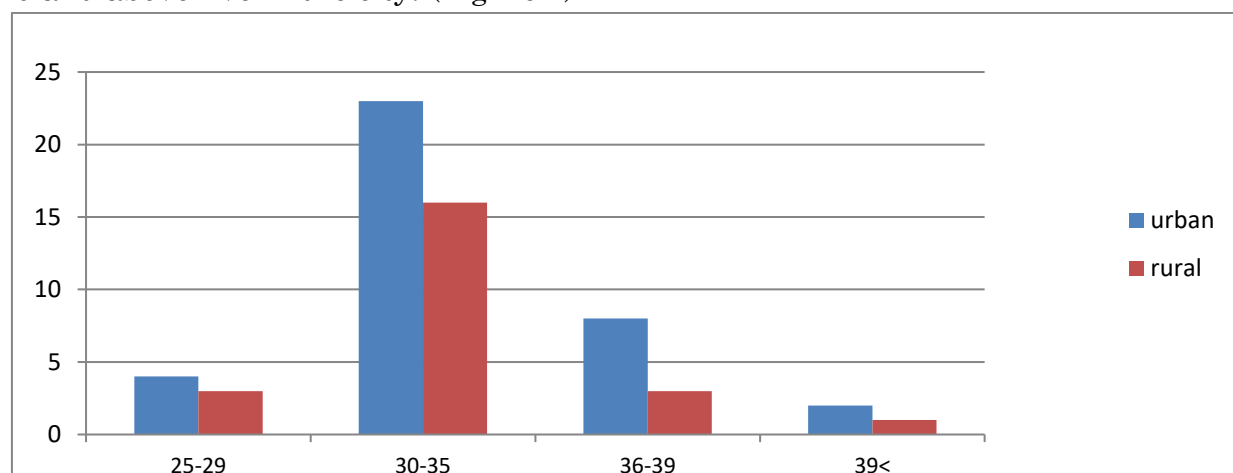


Figure 1. Comparative analysis of the population taken for the study according to the body mass index

When comparing the changes in the hemostasis system of the population taken for the study, changes were mainly observed in the secondary hemostasis. It was observed that prothrombin time decreased in urban residents, prothrombin index increased in urban residents, partially activated thromboplastin time decreased in rural residents, and fibrinogen content decreased in rural residents. When we evaluated the coagulogram in general, these indicators showed that hypercoagulation was observed more often in urban residents (Table 2).

Table 2 Evaluation of the hemostasis system of urban and rural residents

Checked indicators	PTI Σ	PTV Σ	ACTV Σ	MNO Σ	Fibrinogen Σ	p
In the city population	77.12 \pm 1.2	14.34 \pm 0.55	31.64 \pm 1.25	1.33 \pm 0.21	4.9 \pm 0.78	p<0.05
In the rural population	71.55 \pm 3.5	14.7 \pm 0.42	28 \pm 2.56	1.33 \pm 0.28	4.5 \pm 0.92	p>0.05

SUMMARY

It was noted that the body weight index, which is the most common diagnostic criterion of metabolic syndrome, is higher in urban residents. According to the results of the study, the number of complications of metabolic syndrome and complications related to hemostasis disorders are more common in urban residents than in rural residents.

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