



EPIDEMIOLOGY OF RISK FACTORS OF ARTERIAL HYPOTENSION IN POPULATION ENGAGED IN FARMING ACTIVITY

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Article history:	Abstract:
<p>Received: December 10th 2022 Accepted: January 10th 2023 Published: February 14th 2023</p>	<p>The criteria for a significant decrease in arterial pressure is considered to be an element of arterial pressure variability or a certain degree of manifestation. Implementation of various forms of epidemiologic research in order to establish the basis for new approaches to early diagnosis of arterial hypotension, to improve the prognosis, and to achieve high efficiency in prevention has become a necessity and a necessity for farmers in the conditions of Uzbekistan. In the regions of Uzbekistan, there is a great need and necessity to solve the problems of R&T in this approach. The lack of scientific study of this issue, especially among the large population of Uzbekistan engaged in farming, undoubtedly requires science to fill the "gap" in this direction.</p>

Keywords: arterial hypotension (ArGt), primary arterial hypotension (BAg), syncopal state (CS), cardio comorbidity, non-infectious diseases (NC), monitoring of blood pressure (ABKM), chronic non-infectious diseases/cardiovascular diseases (SYuBK/ CKD), risk factor (XO).

Most of the following are confirmed by researchers as the leading causes and risk factors of arterial hypertension (ArGt): primary diseases of the central and autonomic nervous system, decreased circulating blood volume, somatic diseases (cardiac rhythm disorders, compartment myxoma, hypokalemia, mitral valve prolapse), prolonged bed rest. stay, weightlessness, dialysis and heavy metals [12].

Its general features: 1) ArGt is determined by repeated measurements of arterial pressure (AB) level (100/60 mm Hg); 2) in epidemiological studies, only primary arterial hypotension (BAg) - idiopathic hypotension (classified by rubric 193.0 according to XXK - 10) and chronic ArGt are considered and evaluated (according to XXK - 10 195.8); 3) the clinical presentation is dominated by symptoms of autonomic, cardiac complaints (palpitations, rhythm disorders and heart pain) and orthostatic hypotension (SAB and DAB after moving to a vertical position of 20/10 mm or more) [7,11]; 4) a strong tendency to syncopal state (SX) (caused by postural tone disorders and disappear for a short time [9] ; 5) in some cases it causes an acute reaction to dramatic therapy [relanium, anaprilin, teopek, lidocaine, glucocorticoids and cardioverters]; 5) 5-6 percent in 20-30 years old, -1.6-2.7 percent in men, -1.5-10 percent in women; 6) in daily monitoring, the rate of detection of arterial pressure monitoring (ABKM) increases to 15.1%; 7) ArGt affects women more often than men, and the

frequency of detection decreases after the age of 50 [2].

Mental stress, fatigue, and genetic predisposition are often cited as risk factors for the development of ArGt (115). It should be taken into account that according to the clinical and epidemiological results, the norms of arterial pressure accepted by the World Health Organization/International Society for Arterial Hypertension (WHO/AGXJ) for "normotonic" (AB<140/90) cannot be used in people with hypotension. . In some cases, arterial (AG) or hypertensive crisis is therefore not based on AB, but on clinical symptoms and "hypotonic past". Otherwise, especially in the elderly, active hypotensive therapy often leads to stroke and dangerous orthostatic hypotension [11, 12].

Tyurina T.V., Lebedev D.S. (2019) based on a meta-review of many scientific and practical sources, recorded data on the description of syncopal states caused by orthostatic hypotension: • at least 1 syncopal state (fainting, fainting) during 1 year is detected in 3% of men and 3.5% of women; • in some populations, the frequency of SX reaches 41%, and recurrent types are confirmed in 15.3% of the population; • SX with the most reflectors is determined around -21 percent; • In 37 percent of cases, the cause of SX remains unclear; SX/obmork is sometimes called "little death"; • death from cardiac systole/strokes is reported to be up to 33% per year, death from noncardiac syncopal state/fainting is up to



12%, and death from unknown syncopal state is confirmed to be up to 6%. [13].

Thus, we think it is logical to consider ArGt as a disease that is becoming or has already become a very pressing problem. Because this disease and its related complications are constantly growing all over the world, and active treatment, even if it is carried out with new drugs, is completely ineffective [6,10,20]. In this regard, early diagnosis, primary and secondary prevention of arterial hypotension is an important condition for improving prognosis in this population, according to international experience. Including in Uzbekistan [14, 15,24].

ArGt can occur in various chronic non-infectious diseases/cardiovascular diseases (CVD/CVD); it occurs as a result of a decrease in heart rate or a decrease in the basal tone of the arteries, that is, it covers a wide range of diseases. Syncopal conditions called by cardiac causes, including ArGt, represent a high-risk group: the mortality rate in this contingent is 20-30% per year regardless of age, and in the absence of somatic diseases, the mortality rate does not exceed 6% [15].

Therefore, prevention of ArGt literally means total cardiovascular prevention or CVD prevention[10].

According to the recommendations accepted at the international level, the tasks of SYuBK/YuQK, which include responsible medical prevention departments (cabinets) engaged in the prevention of STDs, research teams and health centers, as well as family doctors, family polyclinics and medical brigades are defined as follows [1, 21];

- regular screening is performed [15];
- in-depth preventive counseling is conducted [21, 25];
- a consultation of narrow specialists is organized as necessary, a fully integrated SYuBK/YuQK/ArGt leading XO is allocated [18, 19,27];
- Specific aspects of XO are determined in different populations and regions, directions "effective at the specific population level" are defined [22, 30];
- the population with risk factors is sent to medical prevention offices for their correction [23];
- training sessions on medical care and prevention are held before the doctor, screening is performed [26,29].

There is almost unanimity in the results and opinions expressed by most researchers in this direction. Ensuring the operation of the mentioned mechanism in the mentioned joints in a scientifically based manner, especially according to the new data (at least according to the results obtained in the last three years) of local epidemiological investigations, will dramatically increase the efficiency of prevention,

treatment programs and dispensation of ArGt/SYuBK/YuQK [17, 28].

In conclusion, based on the comprehensive review of literature, it should be noted that the main opportunities and sources of modern medical practice and science are focused on the prevention of R&T/SYuBK/YuQK, but this system could not fully realize its potential. Therefore, there is a demand and necessity for new epidemiological studies to eliminate these shortcomings, and the improvement of existing preventive technologies on the basis of them has become an urgent scientific topic. The problem of R&T has been studied mainly in unorganized and organized population, especially in Uzbekistan. However, it is known that the population of farmers is dedicated to R&T and their specific "epidemiological and preventive" features are not taken into account. "The increasing number of the population, without a doubt, requires reorientation of "responsible epidemiological scientific research" towards farmers, with the aim of creating prevention ideas and methods, which are modeled on ArGt/SYuBK/YuQK. This dissertation is planned with these goals in mind, and solving them is set as a priority task.

THE PURPOSE OF THE STUDY was to study and evaluate the risk factors of arterial hypotension (ArHt) in the population engaged in farming activities in the conditions of the Fergana Valley of Uzbekistan.

RESEARCH MATERIALS AND METHODS

2182 residents $\geq 18-70$ years of age engaged in farming activities in the rural conditions of Andijan region were taken as the object of the research. According to the WHO criteria, their representativeness was ensured and the preparation for the epidemiological study was completed. Analytical materials of simultaneous epidemiological research results were taken as its subject. Through them, the epidemiologic characteristics of ARGt in the population engaged in farming were revealed, evaluated, and appropriate prevention methods were determined..

The rules of study design and implementation fully meet or have been fully complied with the requirements set by the World Health Organization (WHO) for epidemiological investigations [WHO, 2011].

A specially designed screening-epidemiological research system of ArGt was used in the study. Questionnaire, biochemical, instrumental, general clinical, special and statistical analysis methods were used. They have been approved by the WHO and



scientific communities for international use, and recommended for epidemiological studies [4,16].

The epidemiology of ArGt in the population of unorganized rural population engaged in farming activities was studied and its details were determined. For example, in the farming population $\geq 18-70$ years of age, the prevalence of ArGt is 11.5 percent (-12.5 percent in men and -10.5 percent in women). As age changes, the frequency of its detection increases 1.6 times. In this population, it was found that the "ArGt construct" is expressed in a way that depends on social and family conditions and labor activity. In particular, ArGt shows the characteristic of spreading in the highest frequencies in "Population of farmers with higher education" (14.1 percent), "Population with secondary education" (12.6 percent) and "Population with difficult family conditions" (up to 16.0 percent).

It was also confirmed that age as a non-modifiable risk factor for ArGt in male farmers shows a significant pathogenic contribution. Second, the role of age in causing the disease begins to increase after the age of 31 and increases the frequency of detection of ArGt by almost three times. But the age range of 31-49 and $\geq 18-30$ is confirmed as a "strong unfavorable area" that increases the risk of ArGt. This contradicts the existing scientific results to some extent [7, 22].

Those engaged in **farming activities** were selected from the list of the population living in the survey area, according to the last electoral roll, and divided among them for the epidemiological study. A representative selection was organized on the principle of "full sample"; • cohort (cohort) group of farmers was identified (2250); • 2182 of them (1069 men and 1113 women $\geq 18-70$ years old) were fully examined according to the research program; • this defined population was called for screening by direct contact and explanatory interview (with full use of primary care staff).

Currently, there are no specific criteria for arterial hypotension. In our study, the classification of N.S. Molchanov (1962) was used for the diagnosis of arterial hypotension, and generally accepted diagnostic criteria were used. In particular, specific clinical symptoms for ArGt were taken into account. Arterial hypotension was diagnosed when blood pressure was observed below 100/60 mm Hg in men and below 95/60 mm Hg in women (following the measurement rules of AB). In addition, when daytime systolic arterial pressure (SAB) is < 101 and night < 86 mm Hg, diastolic arterial pressure (DBP) is < 61 during the day

and < 48 mm Hg at night. when it is equal, it was considered to be diagnosed as ArGt.

Demographic data, cardiovascular disease, and cardiovascular continuum factors were collected during the questionnaire survey, during analysis of available medical records. It was taken into account that there was an anamnesis of UCC and ArGt. Symptomatic episodes of arterial hypotension in our study were defined as episodes of at least 15% decrease in blood pressure (BP) from the average values recorded by the patient, with a previous self-measurement by the client at home and a significant worsening of the general condition less than 1 time in 3 months (head circulation, severe malaise, headache, accompanied by a feeling of discomfort in the heart area and not associated with any specific reasons (injuries, dehydration, overdose of drugs, change of antihypertensive therapy, etc.).

The survey was conducted using a special questionnaire (U.K. Qayumov, 2019). This unified and standardized questionnaire is adapted to the epidemiological studies carried out in the conditions of Uzbekistan, approved by the ethics committee of the SSV of the Republic of Uzbekistan (protocol 2, 28.02.2019) and allowed to be used in investigations. The questionnaire consists of 378 questions and 17 sections.

The following laboratory-biochemical and instrumental examinations were used, based on the results, an epidemiological diagnosis of ArGt was formed and recommendations for its prevention and control were developed (using the first-line material and technical base): general blood analysis (hemoglobin, erythrocytes, leukocytes, erythrocyte sedimentation rate (EChT), color indicator), general analysis of urine (color, protein, urine reaction, specific gravity, hematuria, leukocyturia, cylinders, bacteria), Nechiporenko's test (leukocytes, erythrocytes, cylinders), S-reactive protein, uric acid, rheumatoid factor, determination of total cholesterol, triglycerides, glucose in the blood; EKG ExoKG and ultrasound examination of internal organs (UTT).

Anthropometric measurements were performed as follows: the subject's height was taken in a standing position with an accuracy of up to 0.5 cm. Body weight is measured using standard scales with an accuracy of 0.1 kg. Blood pressure measurement was performed according to generally accepted rules: the population was given 20-30 minutes of rest, blood pressure was measured and evaluated. AB was recorded with accuracy up to 2 mm Hg, measured



twice, the lowest values of SAB and DAB in the V-th phase were taken as the true level of AB.

The dietary habits of the population were studied and evaluated: the average quantitative level of consumption of fruits and vegetables was calculated and evaluated using the methods recommended by the Russian Scientific Society of Cardiology [8].

OBTAINED RESULTS AND THEIR DISCUSSION

According to the results of a large number of epidemiological studies, factors such as smoking,

genetic predisposition, alcohol abuse, obesity, diabetes, dyslipidemia, unfavorable family conditions, education, and low consumption of fruit and vegetable products increase the risk of CKD origin, exacerbation, and death [3, 5, 16].

Current occupations include farm workers and this population engaged in farming activities has specific characteristics: Therefore, in our study, the epidemiology of ArGt in this existing population group was studied for the first time in a valley setting (shown in Table 1)

1-Table
Frequency of risk factors of ArGt

τ/p	Risk factors	Chances of Chance (Men and Women)
1.	Smoking	$ИШ=0,87; 95\% ИИ 0,59-1,30; \chi^2=0,57$
2.	Hereditary predisposition	$ИШ=2,69; 95\% ИИ 1,92-3,79; \chi^2=48,4$
3.	Alcohol consumption	$ИШ=0,99; 95\% ИИ 0,68-1,46; \chi^2=0,006$
4.	Obesity	$ИШ=2,21; 95\% ИИ 1,68-2,91; \chi^2=68,4$
5.	Type II diabetes	$ИШ=0,50; 95\% ИИ 0,26-0,97; \chi^2=4,98$
6.	Dyslipidemia	$ИШ=0,44; 95\% ИИ 0,24-0,82; \chi^2=8,05$
7.	Hypodynamia	$ИШ=0,38; 95\% ИИ 0,22-1,44; \chi^2=0,53$

Note: Job opportunity, II-confidence interval

Table 1 shows that the main result of the study was the assessment of the frequency of risk factors of R&D.

It was proved that smoking is important in the development of ArGt ($ИШ=0.87$), but II and χ^2 showed that this result was not statistically significant (95% 0.59 – 1.30; $\chi^2=0.57$).

A genetic factor is determined by the frequency of multiple distribution in the examined population, reaching double. It was clinically proven that it is important in the origin of ArGtn ($ИШ=2.69$). The confidence interval and χ^2 confirmed that this result was statistically significant (95% 1.92-3.79; $\chi^2=48.4$).

The analysis proved that alcohol consumption is a weak protective factor in the development of ArGt ($ИШ=0.99$). But both II and χ^2 confirmed that they are not statistically significant (95% II 0.68-1.46; $\chi^2=0.0006$).

It can be seen from the data of Table 5 that obesity is an important factor in the formation of ArGt

($ИШ=2.21$). But the confidence interval, χ^2 and Pearson's R criterion confirmed that this association was statistically significant (95% II 1.68-2.91; $\chi^2=68.4$? $R<0.05$).

It was clinically proven that type 2 diabetes is important as a strong protective factor in the development of ArGt ($ИШ=0.5$). II, χ^2 and Pearson's R criterion confirmed this result as statistically significant (95% II 0.26-0.97; $\chi^2=4.98$? $R=0.025$).

A similar trend was observed in relation to the dyslipidemia (dlp) factor.

It was clinically proven that DLP is important as a strong protective factor in the development of ArGt ($ИШ=0.44$). II (95% 0.24-0.82) χ^2 and Pearson's R criterion confirmed this result as statistically significant ($\chi^2=8.05$? $R=0.004$). In hypodynamia, the trend of almost similar association with ArGt is confirmed ($ИШ=0.38$; 95% II=0.22-1.44; $\chi^2=0.57$).

Table 2 presents an epidemiological description of the frequency of detection of ArGt in relation to the risk factor of smoking



2-Table

The frequency of detection of ArGt in the population of farmers depending on the smoking factor

Age group Ethnic groups	Frequency of detection of ArGt									
	≥18-30		31-49		50-69		≥70		≥18-70	
	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%
Male population	2	50,0	13	65,0	7	100,0	0	0,00	22	71,0
R	∩∅		<0,05		<0,01		0		<0,01	
Female population	2	50,5	7	35,0	0	0,00	0	0,00	9	29,0
Total farming population	4	12,9	20	64,5	7	22,6	0	0,00	21	100,0

The smoking factor increases the incidence of ArGt in male and female farmers aged ≥18-70 years to 71.0 and 29.0%. In men, its contribution to the development of ArGt is 2.4 times higher than in women (R<0.01). In other age groups, the prevalence of ArGt in the male and female population with differences due to smoking (except for (≥18-30 years)) is noted: 50.0 and 50.0 percent in ≥18-30-year-olds, 31-49 -65.0 and 35.0 percent (R<0.05), at 50-69 - from 100.0 and 0.00 percent (R<0.01), and at ≥ 70 years old - not recorded (0.00%).

In the farming population, the prevalence of ArGt is most dependent on smoking and is detected in 31-49 (64.5 percent) and 50-69 (22.6 percent) and relatively less in ≥18-30-year-olds (12.9 percent). We think that the "disappearance" of the problem of ArGt after the age of 70 attracts attention and certainly points to the need to study the gerontological epidemiological issues of this scientific topic separately.

Analyzes of the association of genetic factors with ArGt are summarized in Table 3

3-Table

The frequency of distribution of ArGt in the population of farmers depending on the genetic predisposition

Age group Ethnic groups	Frequency of detection of ArGt									
	≥18-30		31-49		50-69		≥70		≥18-70	
	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%
Male population	2	40,0	6	60,0	22	59,5	2	66,7	32	58,2
R	<0,05		<0,05		<0,05		<0,01		<0,05	
Female population	3	60,0	4	40,0	15	40,5	1	33,3	23	41,8
Total farming population	5	9,1	10	** 18,2	37	*** 67,3	3	5,5	55	25,6

Hereditary factor is confirmed as a strong influencing or leading factor in the development of ArGt (Table 3). In the fourth examined contingent (25.6 percent), this factor is involved in the origin of ArGt (reaching -58.2 percent in men and -41.8 percent in women; R<0.05). Directly related to this factor at different ages, ArGt is expressed by the differential

prevalence frequency: -9.1 percent in ≥18-30-year-olds (-40.0 percent in men and 60.0 percent in women; R<0.05), in 31-49 - 18.2 percent (from -60.0 percent in men and -40.0 percent in women; R<0.05), -67.3 percent in 50-69 (-59.5 percent in men and -40.5 percent in women; R<0.05) and -5.5 percent in those aged ≥70 years (from -66.7 percent in men and



-33.3 percent in women; $R < 0.01$). The conclusion is that with age, the genetic factor, "pathogenicity appearance" increases by 7.4 times compared to ArGt [$R < 0.01$].

The role of alcohol abuse in the origin of ArGt in this population is -11.3 percent (-70.6 percent in men and -29.4 percent in women; $R < 0.01$). Its contribution is greatest in the age group of 31-49

years (58.8 percent) and 50-69 years (26.5 percent), relatively less (11.8 percent) and sharply less (2.9 percent), to ArGt origin, \geq It is observed in people over 18-30 and ≥ 70 years old. The role of this risk factor increases by 5.5 times depending on age ($R < 0.01$). The results of these analyzes are presented in Table 4.

4 -Table

Characterization of the relationship between alcohol consumption and ArGt in a farming population

Age group Ethnic groups	Frequency of detection of ArGt									
	$\geq 18-30$		31-49		50-69		≥ 70		$\geq 18-70$	
	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%
Male population	2	50,0	12	60,0	9	100,0	1	100,0	24	70,6
R			$< 0,05$		$< 0,05$		$< 0,05$		$< 0,01$	
Female population	2	50,0	8	40,0	0,0	00,0	0,0	0,00	10	29,4
Total farming population	4	11,8	20	** 58,8	9	*** 26,5	1	2,9	34	11,3

The role of this factor in men and women, in the origin of ArGt, from 50.0 and 50.0 percent ($\geq 18-30$ years old), 60.0 and 40.0 percent (31-49 years old;

$R < 0.05$), 100, 0 and 0.00 percent (at 50-69; $R < 0.05$), 100.0 and 0.00 percent (≥ 70 years; $R < 0.05$).

The association between ArGt and obesity is shown in Table 5.

5 -Table

Epidemiological characterization of the association between ArGt and obesity in a farming population

Age group Ethnic groups	Frequency of detection of ArGt									
	$\geq 18-30$		31-49		50-69		≥ 70		$\geq 18-70$	
	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%
Male population	28	65,1	28	65,1	12	20,0	0,0	00,0	68	65,4
R	$< 0,05$		$< 0,05$		$< 0,01$		$< 0,05$		$< 0,05$	
Female population	15	34,9	15	34,9	4	6,7	2	100,0	36	34,6
Total farming population	43	41,3	43	41,3	60	*57,7	2	*1,9	104	22,0

According to analytical indicators, the prevalence of ARG directly related to obesity in the population of farmers aged $\geq 18-70$ years is recorded as follows: -22.0 percent in $\geq 18-70$ years old (65.4 percent in men and 34.6 percent in women, $R < 0.05$), at 18-30 -41.3 percent (from -65.1 percent in men and -34.9 percent in women; $R < 0.05$), -41.3 percent at 31-

49 (from -65.1 percent in men and -34.9% in women; $R < 0.05$), -57.7% in 50-69 (-20.0% in men and -6.7% in women; $R < 0.01$) and -1 in ≥ 70 -year-olds .9 percent (from -0.00 percent in men and -100.0 percent in women; $R < 0.05$). The strong effect of this XO is significant in 50-69 and $\geq 18-30$ -year-olds, after ≥ 70 years - on the contrary, there is no connection at



all: the frequency of detection of ArGt is sharply reduced ($R < 0.01$).

The incidence of arterial hypotension related to type 2 diabetes in the farming population is 6.0%, -40.0% in women and -60.0% in men ($R < 0.05$). It can

be concluded that this result is mainly associated with the stage of decompensation of the QD-2 type, or it is confirmed in the analysis (Table 6 shows such a description in the numerical analysis).

6-Table

Epidemiological description of the frequency of detection of ArGt in relation to type 2 diabetes in the population of farmers

Age group Ethnic groups	Frequency of detection of ArGt									
	≥18-30		31-49		50-69		≥70		≥18-70	
	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%
Men population	1	50,0	5	62,5	0,0	0,00	0,0	0,00	6	60,0
R	-		<0,05		-		-		<0,05	
Women population	1	50,0	3	37,5	0,0	0,00	0,0	00,0	4	40,0
Total farmers population	2	20,0	8	*** 80,0	0,0	0,00	0,0	0,00	10	6,0

It follows from the numerical analysis that, in accordance with type 2 of QD, ArGt is proven with the following distribution frequency in men and women: in ≥18-30 years old - 50.0 and 50.0 percent, in 31-49 - 62.5 and from 37.5 percent ($R 0.05$), at 50-69 - from 0.0 and 0.00 percent, at ≥70 years old - from 0.0 and

0.00 percent. Overall, with age, ArGt QD 2 increased from 20.0 percent (≥18-30 years) to 80.0 percent (31-49 years) in the population, that is, 4-fold ($R < 0.001$).

Table 7 provides an epidemiological description of the association between ArGt and dyslipidemia.

7-Table

Epidemiological description of the association between ArGt and dyslipidemia in a farming population

Age group Ethnic group	Frequency of detection of ArGt									
	≥18-30		31-49		50-69		≥70		≥18-70	
	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%	In absolute number	%
Men population	1	50,0	4	66,7	2	100,0	1	100,0	8	72,7
R	-		<0,01		<0,05		<0,05		<0,01	
Women population	1	50,0	2	33,3	0,0	0,00	0,0	0,00	3	27,3
Total farmers population	2	18,2	6	** 54,5	2	18,2	1	9,1	11	5,3

The numerical data of the table confirm that in the population of farmers aged ≥18-70 years, ArGt due to DLP is expressed with a prevalence of 5.3 percent (-72.7 percent in men and -27.3 percent in women; $R < 0.01$). In other age groups, such correlation is described as follows: ≥18-30 years -18.2 percent in the general population (50.0 and 50.0 percent - in men and women), 31-49 years -54.5

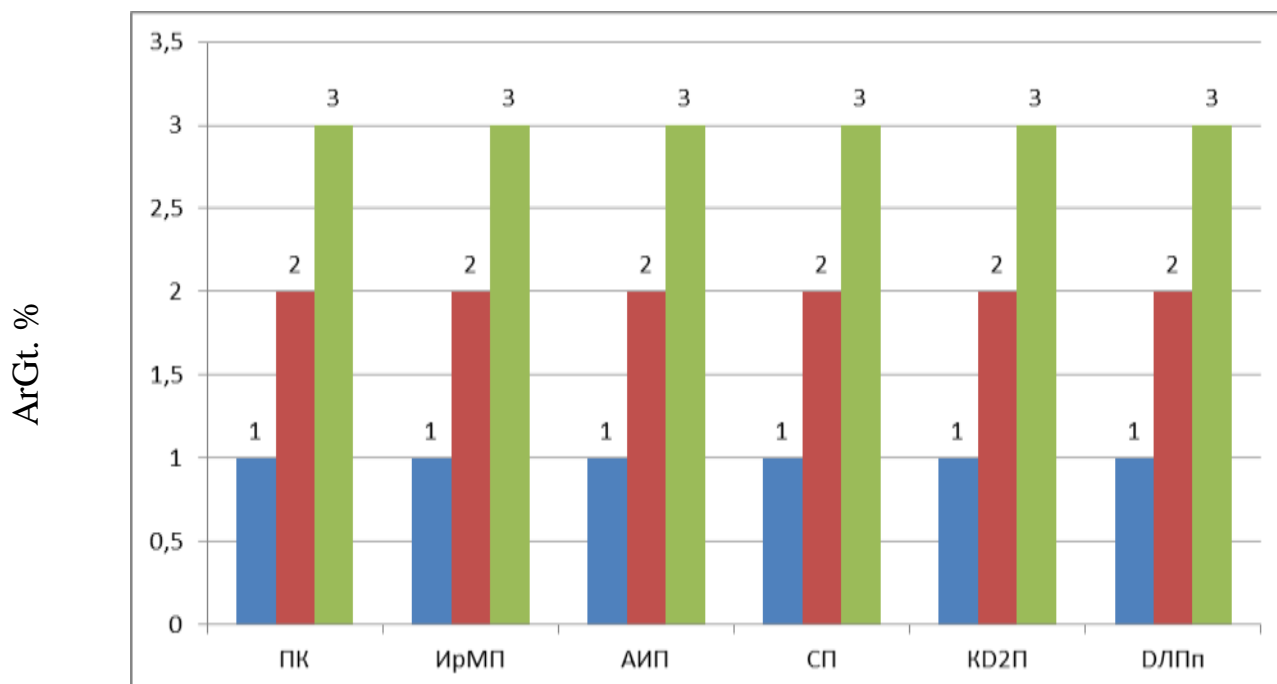
percent (in men -66, 7 percent and -33.3 percent in women; $R < 0.01$), -18.2 percent in 50-69 (-100.0 percent in men and -0.00 percent in women; $R < 0.05$), ≥70 -9.1 percent in the elderly (from -100.0 percent in men and -0.00 percent in women; $R < 0.05$).

6 risk factors play an important role in the occurrence of ArGt in the farming population: obesity, genetic factors, alcohol consumption, obesity, type 2



diabetes and dyslipidemia (illustrated in Figure 1, and these factors are represented by the leadership

characteristics of ArGt.



PK-smoking population, ИрМП-population with genetic predisposition, АИП-alcohol drinking population, СП-obesity population, КД2П-population with type 2 diabetes, ДЛПн-dyslipidemia detected population, 1-general population of farmers, 2-population of female farmers, 3 male farmer population.

Figure 1. Characteristic changes of arterial hypotension depending on risk factors.

The data in Figure 1 logically make it possible to make general conclusions. 1) smoking, genetic factor, alcohol consumption and obesity are distinguished as the leading risk factors for the origin of ArGt, КД2 and ДЛП are considered as relatively "inferior XO"; 2) all XOs were detected with a significantly higher prevalence in men; 3) genetic factors are significantly more common in the population with ArGt than all factors in terms of detection frequency (2.5 times more than smoking, $R < 0.01$; compared to alcohol - twice as much, $R < 0.01$; less than obesity dominant with difference ($R 0.05$), expressed 4 times stronger than diabetes, $R < 0.01$; 5 times stronger compared to dyslipidemia, $R < 0.01$) is confirmed with a high index and expressing a strong effect.

In R&D, these results are of medical, social and economic importance in the planning and implementation of prevention programs.

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