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FACTOR HYGIENIC ANALYSIS OF THE DAILY DIET IN THE SPRING AND AUTUMN PERIOD IN PATIENTS SUFFERING WITH CHRONIC GLOMERULONEPHRITIS

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Abstract: This article presents a hygienic analysis of the composition of the daily diet of patients with chronic glomerulonephritis. An analysis of the daily diet of patients living in the Andijan region at home in the spring and autumn season was carried out. The results obtained were assessed for compliance with the requirements of sanitary standards and regulations 0007-2020, and the chemical composition for compliance with the standards "Chemical Composition of Food Products". The results obtained show that the daily diet of patients does not meet physiological normative indicators and hygienic requirements.

Keywords: Nutrition, Glomerulonephritis, Diet, Bread, Meat, Dairy and fish products, Carrots and fruits.

Regarding the prevention of chronic diseases among the population in our country, the President of the Republic of Uzbekistan No. PF-60 dated January 28, 2022 "On the development strategy of New Uzbekistan for 2022-2026" [1], No. PQ-4063 dated December 18, 2018 "Prevention of non-communicable diseases, on measures to support a healthy lifestyle and increase the level of physical activity of the population" [2], decisions of November 10, 2020 No. PQ-4887 "On additional measures to ensure the population's healthy diet" [3] and this research work serves as a basis to a certain extent in the implementation of tasks defined in other regulatory legal documents related to the activity.

Eating disorder reduces resistance to the harmful effects of environmental factors and creates conditions for the development of various diseases. These include excess body weight, metabolic syndrome with metabolic diseases, cardiovascular system, kidney diseases, autoimmune diseases and diabetes [4, 5, 6].

Glomerulonephritis - kidney immuno-inflammation with the main involvement of glomerular apparatus is considered a kidney disease, and acute tonsillitis, viral diseases, pneumonia and various paralytic viruses are considered a disease that develops as a result of taking anti-viral drugs [5, 6, 10, 11].

In case of kidney diseases, it is advisable to replace meat products with vegetable proteins in the daily ration of hard-to-digest and high-protein products. The amount of gas-forming products together with excessive salty, salty, fried, spicy, confectionery products in the daily diet of patients was estimated [16, 17, 18].

Glomerulonephritis is an infectious inflammatory disease of the kidneys affecting the kidney tissues. This is a common disease, which is divided into chronic and acute forms, and there are asymptomatic variants. In this disease, along with active drug therapy, it is important to support appropriate nutrition and follow the principles of curative and preventive nutrition. It should be designed to reduce the burden on the kidneys,

replenish the loss of vitamins and trace elements, and provide energy to the body for rapid recovery [16, 17, 18].

A healthy diet is the basis of a healthy lifestyle. Adherence to a healthy lifestyle and its main components depends not only on increasing the efficiency of working ability among different layers of the population, but also on the prevention of various diseases depending on their age and gender [12, 13, 14, 15].

Today, one of the main tasks of modern nutritionology is focused not on the diet of the population, but on the perfect study of the hygienic, medical and biological properties of a specific product. Feeding all layers of the population, especially children and the elderly, with pure quality food products is one of the main criteria aimed not only at improving their health status, reducing alimentary diseases, but also at increasing life expectancy in combination with reducing the impact of environmental risk factors [12, 13, 14, 15, 16, 17].

Hygienic assessment of the diet of patients and patients with chronic glomerulonephritis based on a combination of local plant products is one of the urgent problems facing primary care and field workers.

Aim of the Research. It consists of a hygienic analysis of the daily nutritional status of patients with chronic glomerulonephritis at home in the spring and autumn season of the year.

Materials and Methods. Patients and patients aged 18 to 60 years old were taken for the purpose of multifactorial analysis of the daily diet of patients living in Andijan region and suffering from chronic glomerulonephritis. Researches were carried out during 2020-2023. In the spring season of the year (March, April, May), the beginning, middle and end of each month, during the whole season, 81 (9 out of 10) menus were analyzed according to their compositional structure.

The patients' daily food intake in all months of the spring season and its physiological composition correspond to the requirements of the current the requirement norm and regulations 0007-2020 "Average daily rational nutrition norms aimed at ensuring healthy nutrition for the population of the Republic of Uzbekistan by age, gender and professional activity groups" [9] and their chemical composition depends on the factor results analyzed on the basis of “Chemical composition of food products” and their obtained results were carried out on the basis of the analysis [7,8].

Results and Discussion. In order to find and scientifically analyze the deficiency of the results obtained in the daily diet of patients with acute and chronic glomerulonephritis during the main months and days and its solution, to analyze the daily diet of workers in a separate order in all seasons of the year and to carry out a comparative analysis of the obtained results with physiological normative indicators and seasons We found it appropriate to evaluate the impact of the changes that occurred during the course of the disease on the recurrence and progression of the disease.

In the analysis of the diet of patients with chronic glomerulonephritis, in this study we analyzed the consumption ratio of 42 specified products specified in the sanitary norms and rules, which determined the hygienic analysis of the home diet in the spring and autumn season of the year, and analyzed them in the order of separation into the main group of products and the products of the risk group, and its, we consider the need to assess the role of the disease in development and to develop conclusions and practical recommendations based on it as a solution to the tasks set before us.

In the analysis of food, the working conditions and the eating habits are divided into 5 groups and recommended. Taking this into account, we analyzed the changes in the daily nutritional status of the patients in order to determine the sharp differences, depending on the compliance with the recommended diet for the population of the first group.

In the course of this study, patients were analyzed in groups according to their diet and daily consumption, and the main group was bread and bakery products.

It's no secret that bread and bread products with a high glycemic index form the basis of the daily diet of not only patients and healthy people living in our region.

We aimed at this group to study the products specified in the normative documents in a separate and aggregated manner. The first group of products includes bread and bakery products, which include legumes, flour, rice, porridge, bread, rye bread and macaron, and the results are presented in Table 1.

Table 1. The level of consumption of bread products at home in the the spring and autumn season of patients with chronic glomerulonephritis living in Andijan region

№	Product	F/m		Absolute consumption rate		%		Low relative to the norm	
		M	F	M	F	M	F	M	F
Bread and bakery products and legumes									
1	Legumes	15	20	7	6	46,7	30,0	-53,3	-70,0
Bread and bakery products									
2	Flour	20	20	25	22	125,0	110,0	25,0	10,0
3	Rice	50	45	38	26	76,0	57,8	-24,0	-42,2
4	Porridges	20	20	11	12	55,0	60,0	-45,0	-40,0
5	Bread	250	200	375	265	150,0	132,5	50,0	32,5
6	Rye bread	80	80	37	39	46,3	48,8	-53,8	-51,3
7	Pasta	50	40	70	50	140,0	125,0	40,0	25,0
	Total	470	405	556	414	118,29	102,22	18,29	2,22
Dangerous foods									
1	Margarine	5	5	22	16	440,0	320,0	340,0	220,0
2	Coffee	3	2	10	7	333,3	350,0	233,3	250,0
3	Salt	5	5	10	9	200,0	180,0	200,0	180,0
4	Sugar	30	20	35	33	116,7	165,0	16,7	65,0
5	Confectionery	40	40	55	60	137,5	150,0	37,5	50,0
6	Honey	20	20	11	8	55,0	40,0	-45,0	-60,0
7	Vegetable oil	30	25	35	22	116,7	88,0	16,7	-12,0
8	Tomato paste	3	3	6	5	200,0	166,7	100,0	66,7
9	Spices	2	2	5	4	250,0	200,0	150,0	100,0

As can be seen from the data presented in Table 1, an analysis of the nutritional status of the patients' home diet in the spring season of the year is presented. Legumes are listed first in this table.

Legumes include beans, peas, and mung beans. It is considered a source of vegetable proteins and is important in the diet.

Green peas together with proteins are a source of antioxidants, vitamins A, B1, C, E, PP and minerals potassium, magnesium, calcium, iodine and iron. Green peas perform specific tasks in kidney failure and kidney, heart, liver diseases, excess body weight, prevention of obesity, prevention of oncological diseases.

Bean plant proteins are considered a source of zinc with flavonoids. Its composition is rich in peridoxin, thiamine, pantothenic and ascorbic acids, and it is widely used in folk medicine for the prevention of kidney disease.

Moss is a source of niacin together with plant proteins. It improves the functioning of the thyroid gland and increases the activity of urine secretion.

The lack of leguminous products in the daily diet creates conditions for the occurrence of conditions related to the lack of plant proteins, and the level of consumption of leguminous products in the daily diet of men during the control period was 46.7% and 30.0% in women.

It was found that the daily diet of patients with chronic glomerulonephritis, together with the diet of other patients with diabetes, cardiovascular system, psoriasis and workers of cement production enterprises and other layers of the population, consisted of bread products [4, 12, 13, 14, 15].

The consumption level of high-quality bread in the daily diet is 132.5-150% more than the norm in men, and flour and macaron products are also more. Despite the fact that the general consumption level of bread and bakery products is 102.22-118.29% higher, the consumption level of rye bread, rice and porridge is low.

It should be noted that together with the inclusion of rice in the group of bread products, the physiological norm is indicated in the regulatory document as a sharp excess.

It is clear from the analysis of the patients' daily diet that their daily eating habits, non-observance of healthy eating requirements, along with the development of a number of diseases, became the main source of the virulence of chronic glomerulonephritis in the body due to kidney diseases.

In accordance with the recommendations given by the World Health Organization (WHO), in the daily diet of the population living in our country, margarine, confectionery, sweets, drinks with high sugar content, sugar and table salt, vegetable oil, sweet coffee, tomatoes and spices are consumed excessively. we made it our main goal to divide this group of products into products of health risk groups.

It was found that the consumption level of margarine in the daily diet of the second group of products is very high in the products of the risk group, compared to the physiological norm, up to 4.4 and 3.2 times, the consumption level of coffee is up to 3.5-3.3 times, the consumption level of table salt is above the physiological norm. 2.0-1.8 times, and 1.1-1.6 times the amount of sugar, and 1.5-1.3 times the consumption of confectionery products.

The level of consumption of vegetable oil in the control season was 116.7% more in men and 88.0% in women.

The amount of tomatoes and spices is also drastically excessive.

It is necessary to promote public conversations among the population and their complexity based on systematic approaches to ensure and reduce the standard level of products in the risk group.

Table 2 shows the level of consumption of meat, fish and dairy products and eggs in the daily diet of patients with chronic glomerulonephritis.

We included meat, fish and dairy products and eggs in the third group of products based on their consumption indicators, and it is necessary to include these products in the main first group based on their nutritional and biological value.

Meat products in the patients' daily diet are a source of irreplaceable amino acids. They are distinguished by the unity of the structure of the organism, plastic processes, immunological and active participation in ensuring the oncotic pressure of the blood.

The consumption level of common meat products in the daily ration was 50.91-58.44%, rabbit meat was 44.0-32.0%. The consumption of mutton from meat products in the daily diet was 73.0-75.0%.

Today, rabbit meat, which is a source of dietary and dietary meat products, is consumed very little and is not included in the diet, although rabbit meat is a product rich in vitamins B1 and B12 and PP, as well as iron, phosphorus, cobalt, potassium, fluorine, and manganese minerals.

Pure fish, together with the consumption of fish products as a substitute, omega 3 and 6 from the irreplaceable amino acids needed by the body, and despite the fact that chronic glomerulonephritis is considered an inflammatory disease, despite the fact that fish is also considered a source of hormones aimed at preventing inflammation in the spring season 58,80 - Up to 69.2% underprivileged.

The role of milk and milk products in the main diet, calcium, phosphorus, potassium, magnesium microelements and the source of animal proteins and fats, along with osteoporosis and osteoarthritis, is high in the prevention of cancer.

Drinking milk with pure honey prevents insomnia. Along with the positive biological properties of milk, the negative properties are the breakdown of the lactose enzyme. Dairy products are a source of lactobacilli and are a source of vitamins A and B12.

In the daily ration, the consumption level of milk is 2.9-2.8% less among the sexes during the spring season, the consumption level of sour cream, cream cheese, butter is also drastically less, and the consumption level of general dairy products is 2.6-2.7 times physiological. is less than the standard indicators.

The amount of dairy products in the daily diet of patients with chronic glomerulonephritis is drastically reduced, and the source of protein and well-digestible animal fats that enter the body through milk has also decreased. In turn, this situation causes the butter to be low in vitamins E and D.

Butter is a source of cholesterol, cholesterol is involved in the synthesis of a number of hormones.

Table 2. Consumption levels of meat, fish and dairy products at home in the spring and autumn season of patients with chronic glomerulonephritis

№	Product	F/M		Absolute consumption		%		Relative to the norm	
		M	F	M	F	M	F	M	F
Meat and meat products									
1	Beef	60	60	33	23	55,0	38,3	-45,0	-61,7
2	Mutton	30	20	22	15	73,3	75,0	-26,7	-25,0
3	Rabbit meat	25	25	11	8	44,0	32,0	-56,0	-68,0
4	Chicken	70	60	43	35	61,4	58,3	-38,6	-41,7
	total	185	165	109	81	58,44	50,91	-41,55	-49,08
5	Pure fish	35	35	16	12	45,7	34,3	-54,3	-65,7
6	Fish product	30	30	11	8	36,7	26,7	-63,3	-73,3
	total	65	65	27	20	41,19	30,47	-58,80	-69,52
Milk and milk products									
1	Milk	400	400	135	140	33,8	35,0	-66,3	-65,0
2	Sour cream, cream	15	15	11	8	73,3	53,3	-26,7	-46,7
3	butter	30	25	13	9	43,3	36,0	-56,7	-64,0
4	Don't swim	30	30	14	11	46,7	36,7	-53,3	-63,3
5	Cheese	20	20	13	10	65,0	50,0	-35,0	-50,0
	total	495	490	186	178	52,41	42,2	-47,58	-57,8
Eggs									
1	Egg (chicken egg)	1	1	1,5	1	150,0	100,0	50,0	0,0

Table 3. Consumption level of vegetables and fruits in the spring and autumn season of patients with chronic glomerulonephritis

№	Product	F/m		level of consumption		%		Relative to the norm, %	
		M	F	M	F	M	F	M	F
Vegetables									
1	Potatoes	220	200	167	143	75,9	71,5	-24,1	-28,5
Pickles									
1	Salted	50	50	57	45	114,0	90,0	14,0	-10,0
2	Cucumber	50	50	58	46	116,0	92,0	16,0	-8,0
	total	100	100	115	91	115	91	15	-9
Pure vegetables									
1	tomato	50	50	23	15	46,0	30,0	-54,0	-70,0
2	Beetroot	30	30	13	17	43,3	56,7	-56,7	-43,3
3	carrot	50	34	22	33	44,0	97,1	-56,0	-2,9
4	onion	40	40	38	22	95,0	55,0	-5,0	-45,0
	total	170	154	96	87	57,08	59,68	-42,91	-40,31
Other vegetables									
1	Another vegetable	60	60	35	33	58,3	55,0	-41,7	-45,0
Policy products									
1	watermelon	50	50	17	20	34,0	40,0	-66,0	-60,0
2	pumpkin	30	30	14	16	46,7	53,3	-53,3	-46,7
	All	80	80	31	36	40,33	46,66	-59,66	-53,33
Fruits									
1	Fruits	250	250	95	112	38,0	44,8	-62,0	-55,2
2	Grapes	30	30	10	0	33,3	0,0	-66,7	-100,0
3	Citrus fruits	15	15	10	8	66,7	53,3	-33,3	-46,7
	total	295	295	115	120	46	32,71	-54	-67,28
1	dry fruits	20	20	12	11	60,0	55,0	-40,0	-45,0

Together with the protection of egg erythrocytes and cell membrane from the harmful effects of free radicals, glutathione peroxidase actively participates in the increase of enzymes and increases the activity of the immune system. The daily consumption of eggs corresponds to the norm.

Table 3 shows the average daily consumption of vegetables and fruits in the spring and autumn season of patients with chronic glomerulonephritis.

In our study, we divided the products into groups and placed vegetables and fruits in the fourth group of products, the main product of this group is potatoes, in this season, the daily consumption of potatoes is 71.5-75.9% of the physiological norm. Potatoes are rich in vitamins and minerals, anthocyanin and zinc, as well as antioxidants.

The average indicator of consumption of fruits in the daily diet is 40.0-45.0%.

It should be noted that the basis of the fruits depends on the ratio of apples and seasonal fruits, in the spring strawberries, cherries, mulberries followed by apricots. The level of consumption of fruits is insufficient up to 55.2-62.0%.

In case of various poisonings and infectious diseases, the role of stewed apples is high in improving the functioning of the intestines and cleaning them from toxic toxins.

Today, despite the daily increase in allergic diseases caused by various factors, the consumption of citrus fruits (orange, tangerine, grapefruit, kiwi, lemon, foreign pear, banana, etc.) in the daily diet of the population is increasing day by day. Here, their consumption rate is high compared to other fruits and low compared to the norm (53.3-66.7%).

It was determined that the consumption level of dried fruits is less than 40-45%, their juice is the basis for reducing the intake of minerals, potassium and vitamins in the body and the consumption of sugar.

The analysis of the obtained results shows that the diet of patients with chronic glomerulonephritis in the spring season does not meet hygienic requirements. This is the basis for the recurrence of the disease and the occurrence of specific complications, combined with other diseases.

Conclusions. Based on the analysis of the obtained results, we present the following conclusions:

The level of consumption of high-quality bread, flour and pasta products in the daily diet of patients with chronic glomerulonephritis is significantly higher in both sexes compared to the norm. The consumption level of rice and porridge is low, it was found that porridge is 40-45% less than the daily norm in the the spring and autumn season.

In the daily diet of patients with chronic glomerulonephritis, the level of consumption of margarine from risk group products is very high, 4.4 and 3.2 times a day, coffee 3.5-3.3 times, table salt 2.0-1.8 times, sugar 1.1-1.6 times, consumption level of confectionery products 1.5-1.3 times, vegetable oil 116.7% more in men.

The level of consumption of common meat products in the daily ration was 50.91-58.44%, rabbit meat was 44.0-32.0%, and mutton was 73.0-75.0%. Fish products are undersupplied by 58.8-69.2% in spring.

The level of consumption of milk in the daily ration is 2.9-2.8% less among the sexes during the spring and autumn season. The level of consumption of sour cream, cream cheese, and butter is also very low, and the level of consumption of general dairy products is 2.6-2.7 times lower than physiological norms.

In the spring season of the year, the daily ration of patients includes 71.5-75.9% of potatoes, 42.91% of vegetables in men, 40.31% in women, the consumption of other vegetables is turnip, radish, radish, Cabbage was 55.0-58.3%, watermelon crops were 34.0-40.0%, pumpkin consumption was 46.7-53.0%, and total watermelon crops were 2.2 to 2. Less than 5 times.

In the spring of the year, the average indicator of the level of consumption of fruits is 40.0-45.0% less. The basis of fruits depends on the ratio of apples and seasonal fruits, in the spring strawberries, cherries, and mulberries are formed. was 7%. Consumption of dried fruits is less than 40-45%.

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