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ALIMENTARY PROPHYLAXIS OF MASTOPATHY

causes of mammary gland diseases

This book published by teachers of Tashkent Medical Academy a specially Toshmatova G. O, Kobiljonova Sh. R, Imamova A. O.

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Cover image: www.ingimage.com

Publisher:
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120 High Road, East Finchley, London, N2 9ED, United Kingdom
Str. Armeneasca 28/1, office 1, Chisinau MD-2012, Republic of Moldova, Europe
Printed at: see last page
ISBN: 978-620-6-15583-6

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UDC: 618.19-006-036.22

ALIMENTARY PROPHYLAXIS OF MASTOPATHY

Tashkent 2023

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SIGNS, UNITS, SYMBOLS AND TERMS

AB - arterial pressure
AG - arterial hypertension
UN - United Nations Organization
B and O'G - hygiene of children and adolescents
WHO - World Health Organization
OG - food hygiene
SanQM - sanitary rules and norms
KBS is breast cancer
TTA - Tashkent Medical Academy
TVI - body mass index
TV - body weight
ARVI is an acute respiratory viral infection

INTRODUCTION

The urgency of the problem. The normal functioning of the reproductive system is one of the most important components of women's health. However, a complex environmental situation, undesirable effects of the external environment, mental loads, constant stress, abortions, acute infectious diseases, as well as irrational nutrition often lead to disorders of the female reproductive system, in particular, dysmenorrhea, mastalgia, rapid mood swings, depressive state, early climax and leads to hormonal changes manifested by others (Bespalov V.G., 2007; Ilin A.B. et al. 2005).

Recent years have been characterized by an increase in the frequency of mammary gland diseases. Various pathologies of this organ occur in an average of 25% of women under the age of 30 and in 60% of women after the age of 40. In the reproductive age, one of the safe diseases of the breast - mastopathy is observed more often (Kogan I.Yu. et

al., 2004). According to various researchers, up to 40% of women of childbearing age have mastopathy.

Mastopathy is a safe disease. However, in some cases, this pathology can be an intermediate stage in the development of a poor quality (dangerous) process. The percentage of mastopathy turning into cancer is in a wide range, depending on its form, it is 0.18% - 31.2%. Cancer of the mammary glands takes the leading place among all types of oncopathology encountered in women by a large margin (Alefirov A.N., 2004). Therefore, treatment and long-term follow-up of these patients are very important to ensure breast cancer prevention.

Timely and correct treatment of safe diseases of the mammary glands is not only a guarantee of women's health, but also provides an opportunity for women to maintain their individuality and mental balance (Tagieva T.T., 2003; Ilin A.B. et al., 2004).

Modern science has not yet determined the cause of the development of these diseases, and has not created narrowly focused pathogenetic methods of correction. Despite the fact that the treatment of mastopathy has a history of 100 years, until now there is no single point of view on the methods of therapy of this disease. A single model of pathogenetic therapy, which allows the practitioner to choose a rational complex of drugs, has not yet been created. Issues regarding the duration of therapy that ensures normal hormonal and metabolic indicators also remain unclear (Bespalov V.G., 2007).

Dietary factors are of great importance in the pathogenesis of mastopathy and breast cancer. The nature of food and diet affects the metabolism of steroid hormones. It has been determined that a diet with a sufficient amount of fats and meat products leads to a decrease in the amount of androgens in the blood plasma and an increase in the amount of estrogens, in addition, the production of carcinogenic substances increases (V.P. Pletyagin, 2003). Particular importance is attached to

sufficient amounts of vitamins and coarse fiber in the diet, as its anticarcinogenic effect has been proven (Tagieva T.T 2003).

In recent years, the attention of many representatives of medical science and practice to nutritional problems has increased. This situation is related not only to the negative health consequences of nutritional disorders, which are found everywhere and are widespread among the population, but also to the success of biochemistry, cell biology, genomics, proteomics and other fundamental sciences. When there is a risk of development of a number of diseases, the role of individual macro- and micronutrients, non-nutritive minor biologically active parts of food in managing the functional activity of organs and systems has found its solution (V.A. Tutelyan. 2001, V.G. Vysotsky, 2003).

At the same time, the role of macro- and micronutrients in the occurrence and development of many diseases has not been fully studied or has not been studied at all. This group of diseases also includes mastopathy. There are almost no studies that describe the specifics of nutrition in the development of mastopathy, as well as the treatment and prevention of the disease itself and its poor-quality transformation based on the correction of women's nutrition.

1. Modern aspects of alimentary prevention of mastopathy

Oncological pathology of the breast occupies a leading place in the system of oncological diseases of women [7]. Statistics confirm that the number of cases of breast cancer, which are accurately diagnosed, has been increasing in recent years. In the general system of diseases among women, breast cancer is from 13.5% to 30%, and during the last decades, the incidence is increasing year by year, especially in economically developed countries [16; p. 92-93, 52; 605-608-b]. Therefore, it is especially important to prevent breast cancer.

Breast cancer is the leading cause of oncological diseases and death of women in Russia [7; 48-51-b, 15; 88-89 p]. About 1 million new cases of the disease are detected worldwide every year. The absolute number of women diagnosed with breast cancer for the first time in Russia reached 45,857 in 2002. In 2005, 49,548 new cases of breast cancer were recorded (19.8% in the disease system); 22,461 women died from breast cancer (17.2% in the structure of mortality). One out of every 9 women is diagnosed with this disease. Over the 10 years since 1995, the non-age-adjusted breast cancer incidence rate has increased by 33.8% per 10,000 female population, and the overall mortality rate has increased by 21.1%. The number of women diagnosed with breast cancer is 102 per day [8; 7-10 p, 26; 21-26 p]. From 2003 to 2008, the standardized incidence rate in Russia was 13.4% [5, p. 15-20, 79; 73-76 p]. In Asian countries and other regions, in regions where multiple births and long-term breastfeeding have been preserved,

mastopathy and KBS are significantly less common [86, p. 49-52, 185; 285-300-b].

In recent years, the number of people applying to various treatment facilities for breast diseases not related to breast cancer is increasing [116, p. 21-24, 119; 59-b, 134; 446-457-b]. Mastopathy is considered one of the most common benign tumors of the breast and occurs in 20-60% of women aged 30-50.

According to A.V. Khodzhaev (2010), in Uzbekistan, in 2010, the prevalence of CKD was 8.1 per 100,000 population. In preventive medical examinations, more than 41% of patients with CKD were identified [120; p. 60-61].

At the same time, there is a tendency to the growth of benign breast tumors, which are diagnosed in every fourth woman under the age of 30. In adult women, the pathological condition of the mammary gland is detected in 60% of cases. Diffuse form of fibrocystic mastopathy (DFKM) is observed most often, and according to the data of various authors, 50% to 90% of women suffer from it [20, 61; pp. 17-22, 148; pp. 302-307].

The growth and development of the mammary glands is under complex hormonal control. It is hormones that ensure the formation of the organ, its structure and functional activity, and this is especially evident during the most productive period of mammogenesis - during pregnancy and lactation. The main hormones that monitor the activity of the breast are steroid hormones of the ovary - estrogens and progesterone. Estrogens promote the development and proliferation of the vascular network, connective tissue stroma, and vessels and alveolar epithelium. Progesterone, the development of glandular tissue ensures an increase in the number of alveoli and glandular lobes. The role of the prolactin hormone produced by the pituitary gland is of particular importance. Prolactin, together with estrogen and progesterone, controls the entire process of mammogenesis, and ensures both the formation of the internal structure of organs and postpartum lactation. According to L.M. Burdina, an increase in the level of prolactin

during pregnancy and lactation can be the cause of various forms of mastopathy [20, 21, 9-14-b].

According to the definition of the World Health Organization, mastopathy is defined by an abnormal ratio between epithelial and connective tissue components and a wide spectrum of proliferative and regressive changes in breast tissue [52, p. 605-608, 67; pp. 45-46, 80; pp. 17-19, 116; pp. 21-24].

Mastopathy is detected in 30-70% of women of reproductive age, and its development increases to 70-90% in gynecological diseases. During premenopause, this disease occurs in 20% of women [90; 25-27 p]. According to the data of recent years, malignant neoplasms are 3-5 times more common on the background of benign tumors of the mammary gland and are observed in nodular forms of mastopathy with a proliferative appearance in up to 30% of cases [42, pp. 71-76, 120; pp. 60-61].

Mastopathy develops gradually [7; pp. 48-51]. In ancient Greece, this disease was called "Breast Injury". The insidiousness of this disease is that in the first stage of many cases, it does not cause discomfort in women, but gradually it passes to very severe forms, and sometimes it transforms to the form of breast cancer [142; pp. 121-127]. Therefore, treatment and long-term follow-up of these patients are very important to prevent CHD [129; pp. 757-770].

The most accurate definition of mastopathy as a disease was given by J. Velpean in 1838 [66; pp. 28-34]. The history of the study of mastopathy includes a period of more than 100 years, but despite this, to this day there is no generally accepted point of view of treatment of this pathology. A single model of pathogenetic therapy has not been developed, which allows practitioners to make recommendations on the selection of rational medicinal complexes. Therefore, the method of treatment should be determined individually in each specific case. There is no doubt that it is necessary to treat patients with mastopathy in a complex manner, taking into account long-term, etiopathogenetic, hormonal and metabolic characteristics of the patient, concomitant diseases.

Scientists call mastopathy a gynecological disease caused by many factors, i.e. hereditary (genetic) factors, environmental and lifestyle factors. Some scientists believe that one of the reasons for the origin of mastopathy is the presence of a chronic inflammatory process in the pelvic area and, first of all, inflammation of adnexitis. After that, diseases of the genitals, for example, uterine fibroids, endometriosis, polycystic ovaries and chronic diseases of various organs and systems, etc. is [68; pp. 35-38].

According to T.T. Tagieva, the condition of the hypothalamic-pituitary-ovarian system is a determining factor in the origin and development of mastopathy. Disruption of the neurohumoral system, which organizes the reproductive cycle, enables the activation of proliferative processes in the epithelium of the alveoli and vessels of the mammary gland, and the stroma of the cellular structure. In addition, the high sensitivity of the breast epithelium and the constant variation in the morphofunctional structure contribute to this.

Today, three stages are distinguished in the development of mastopathy:

1. The first stage occurs in women aged 20 to 30 years. In this case, six to seven days before the next menstrual period, the breast becomes rough and painful. In addition, the tissue of the breast becomes dense, hard and becomes very sensitive, and is affected even by an accidental attempt or a sudden movement. These symptoms often disappear on their own with the end of the menstrual period.
2. The first stage occurs in women aged 30-40, and is distinguished by the fact that the sensation of pain in the breast is permanent. Pains increase 2-3 weeks before the start of menstruation. In addition, it is characterized by the appearance of some painful areas when palpating the breast.
3. The last stage is typical for women aged 40 to 45 years. Painful sensations in the breast area are characterized by less intensity and non-permanence. During palpation, many small tumors are visible, and their diameter is up to two to three centimeters, and when the breast is pressed,

it passes with the appearance of a bluish-brown secretion.

Diseases of the breast are diagnosed based on the results of breast examination, UTT, mammography, puncture of nodular formations, suspicious areas and cytological examination of punctate. Such examinations should be carried out during the first phase of the menstrual cycle (2-3 days after the end of the menstrual period).

Currently, there are different classifications of mastopathy. One of them differs in the degree of proliferation and is divided into 3 groups. The first level includes proliferative fibrocystic mastopathy, the second level includes fibrocystic mastopathy with proliferation of the epithelium, and the third level includes mastopathy with atypical proliferation of the epithelium. The last two forms of mastopathy are considered dangerous pre-cancerous conditions.

Medical-biological and social-hygienic factors play a big role in the origin and development of diseases of the mammary glands. Since benign tumors and breast cancer have many similarities in etiological factors and pathogenetic mechanisms, the risk factors for the development of mastopathy and breast cancer are similar in many ways.

The risk of genetic predisposition to breast cancer is not so great, it does not exceed 5-10%. To date, only one gene has been identified that "responds" to 60% of tumor development [23,154]. It is possible that in the near future more genes will be identified and the picture may change. At present, reproductive factors remain the most dangerous factor in terms of the development of the disease. For example, a woman who has not become a mother in her lifetime, or a mother who gives birth to her first child after the age of 30, is at almost the same level and intensity of risk[26,160]. If in the 19th century menarche occurred in girls at the age of 17, and menopause in women at the age of 40, in the present period, it occurs at the age of 12-14 and 50-52, respectively. In the 19th century, women often had children and breastfed for a long time. In the 19th century, women often had one or two

children. As a result, the period of women's reproductive age increased by 2 times, from 20 to 40 years on average, and the number of menstrual cycles during life increased by 4 times - from 100 to 400 on average. Modern women feel significantly longer effects of estrogens [14; 14; pp. 36-39, 160; pp. 435-449, 200; 1129-1231-b]. Another risk factor for the development of dyshormonal changes in the mammary glands is the lack of iodine, which causes disturbances in the hypothalamus-mammary gland system. During times of stress, neuroses, and depression, a woman is more at risk of getting sick. Prolonged mental stress is one of the main causal factors in the origin of mastopathy [5; pp. 15-20, 103; p. 203, 137; pp. 291-298].

Thyroid hormones (thyroxine, triiodothyronine) play an important role in the morphogenesis and functional differentiation of mammary epithelial cells, affect the synthesis and metabolism of steroid hormones in the ovaries. Estradiol, in turn, stimulates the function of the thyroid gland and increases its sensitivity to thyrotropin. Deviation of the physiological secretion of thyroid hormones, which are modulators of the effect of estrogens at the cellular level, can trigger the development of disorders of the organogenesis of hormonally-dependent components in girls and the formation of hyperplastic processes [61; pp. 17-22, 185; 285-300-b].

Hypofunction of the thyroid gland increases the risk of developing mastopathy by 3.8 times. Many data have been collected in the literature indicating the relationship between mastopathy and thyroid gland diseases [21; pp. 9-14, 22; pp. 51-56, 183, 206]. Thyroid pathology was detected in 64% of women with various forms of mastopathy. Hypothyroidism increases the risk of developing mastopathy by 3.8 times. Prolactin levels are high in 40% of women with primary hypothyroidism. Many researchers suggest that hyperprolactinemia occurs due to an increase in the level of thyroliberin observed in hypothyroidism. As a result of the study of the daily secretion of prolactin and thyrotropin hormone (TTG), it was found that the secretion rhythm of the two hormones is different, and the peaks of their increase in

the blood do not correspond, therefore, it was assumed that due to the decrease in the level of thyroid hormones in the blood, the increase in the sensitivity of prolactotrophov to thyroliberin leads to hyperprolactinemia [20, 228; p. 616-620] .

According to some scientists, various diseases of the liver, bile ducts and gall bladder are important causes of mastopathy. The liver plays a very important role in breaking down excess estrogen produced. In liver diseases, this characteristic decreases and the risk of developing mastopathy increases [84; ; pp. 43-46].

Another risk factor is, of course, diet and lifestyle. Obesity, especially during menopause, leads to additional production of hormones, which also has an undesirable effect on the development of breast cancer.

Goncharenko G.V. according to the data, obesity, diabetes and arterial hypertension together with internal risk factors can play a clear role in the development of mastopathy. In an organism where this trio exists, the risk of developing mastopathy increases three times [32; pp. 14-20].

During stress, neurosis, depression, a woman is more at risk of getting sick. Prolonged mental stress is one of the main causal factors in the origin of mastopathy [116; pp. 21-24].

Regular exercise is also known to reduce the risk of this disease to some extent. Of course, the risk factors include excessive insolation, but prolonged exposure to direct sunlight is harmful not only for the mammary gland, but primarily for the skin. However, despite the fact that it is difficult to prove this state with documents, it is undeniable that the state of mind causes a change in the balance of the organism and leads to such bad consequences.

Indirect risk factors are alcohol and smoking.

Exposure to ionizing radiation can also increase the risk of mammary gland diseases.

And finally, injuries of the mammary glands lead to unpleasant consequences.

Small injuries caused by crushes on the subway, bus, accidentally hitting the chest area with an elbow or a bag are also mentioned in the literature [7; pp. 48-51, 8; pp. 7-10, 133; pp. 564-571, 154; p. 123-129].

Hormonal therapy, which is often used after menopause, also has negative effects. Of course, the reception of hormonal drugs significantly eases the life of women, controls the amount of calcium, supports the cardiovascular system. However, it has been proven that taking hormonal drugs for 10 years leads to a 2-fold increase in the risk of breast cancer. Such patients are under the strict supervision of a mammologist and must be examined more [2; pp. 48-50, 80; pp. 17-19, 170.].

Hormonal imbalance in women's body is also caused by lack of regular sex life. Loneliness of women, lack of strong family relationships - all this encourages the development of pathological processes in the breast [52; pp. 605-608, 55; pp. 35-39].

Frequent ARVI, angina and pharyngitis, changes in climate and "biological clocks" can lead to disruption of hormonal balance in the body. The breast area is the first to be sensitive to hormonal disorders [117; pp. 20-24, 178; p. 997]. The origin of mastopathy is related to hormonal imbalance. A woman's body is naturally programmed to bear children many times (5 or more) and breastfeed many times. If this situation does not occur, a large amount of female hormone estrogen accumulates in the body, including the breast, which often causes pain in the breast, especially in the second half of the menstrual cycle [5; pp. 15-20, 8; 7-10 p].

Mastopathy often develops on the basis of chronic inflammatory processes in the genitals, ovarian dysfunction, functional disorders of the nervous system, therefore, it is necessary to start treatment and preventive measures by eliminating the identified causes [80; pp. 17-19, 81; pp. 79-81].

Artificial termination of pregnancy significantly increases the risk of developing mammary gland pathology. The risk of developing mastopathy is 7.2 times higher in women who have had 3 or more abortions [111; pp. 228-

230, 145; pp. 208-221]. Abortion stops the proliferative processes in the mammary glands, and the tissue develops in reverse. These regressive changes occur unevenly, so the development of glands can be pathological.

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Inflammation of the uterus is one of the most common undesirable factors, because the production of sex hormones is disrupted due to inflammation [81; pp. 79-81, 211; pp. 836-841].

The normal functioning of the reproductive system is one of the most important components of women's health. However, a complex environmental situation, undesirable effects of the external environment, mental loads, constant stress, abortions, acute infectious diseases, as well as improper and insufficient nutrition often lead to disorders of the reproductive system, hormonal disorders, dysmenorrhea, mastalgia, rapid mood swings, and depression. , observed with early onset of climax and other conditions [15; pp. 88-89, 16; pp. 92-93, 124; pp. 201-380].

Taking into account the above, the issue of improving the quality of life is becoming more important.

Timely treatment can not only guarantee the protection of women's reproductive health, but also provide an opportunity to preserve women's physical and mental health.

The causes of the development of these diseases have not yet been fully determined by modern science, and no narrowly targeted pathogenetic drugs have been created.

Currently, the treatment of mastopathy patients is carried out in rare cases and is limited to general recommendations. Most of the time, such women fall into the lazily controlled group. And active monitoring in many cases begins only when poor-quality edges are observed in the ongoing process:

rapid enlargement of the node, changes in the shape of the glands, teats and skin of the gland, etc. [7; pp. 48-51, 110; p. 3].

Diseases of the mammary gland usually do not arise separately, but reflect dyshormonal and metabolic disturbances in the body. Therefore, the main principle of treatment is to affect the first cause of the disease - in the presence of reproductive system pathology, a gynecologist, in the case of endocrine pathology, an endocrinologist, in the case of organic pathology in the digestive tract and liver, a therapist, in the central genesis of mastopathy, a psychotherapist or a neuropathologist 61; pp. 17-22, 65; pp. 110-115].

Underrepresented manifestations of diffuse mastopathy in women of reproductive age can be conditionally included in the standard options. However, when there are complaints that worsen the quality of life of patients, or there is a real risk of malignancy (atypical hyperplasia, family history of SBS (RMJ), it is necessary to regularly thoroughly examine these women and have a well-thought-out pathogenetic treatment method. If there is detectable, less manifested cyclic mastalgia, or less manifested diffuse changes are detected as placental pathology, and women do not make any complaints, usually no special treatment is required. Inspection is carried out (mammography or ultrasound (UZT); if necessary - PTAB) and then annually will be seen by a gynecologist and a surgeon at least once.

In women with mild cyclical or permanent mastodynia or fibrocystic changes in mammary glands (in the absence of obvious macrocysts), treatment can be started with the help of diet, non-drug treatment methods, physiotherapy, homeopathic remedies. The influence should be aimed at regulating the menstrual cycle. This applies more to young, otherwise healthy women [8; pp. 7-10, 20, 120; pp. 60-61, 147; pp. 581-587]. If a woman has pronounced mastalgia (permanent or cyclical), changes in mammary tissue can be detected by palpation, and spontaneous or induced discharge from the teats is observed, such a condition can be considered a disease. But even in this case, it is necessary to try to start the treatment with non-hormone means [7;

pp. 48-51].

In the conservative treatment of mastopathy, adaptogens are widely used, they are a group of substances that are mainly of plant nature and have stimulating properties, increasing the body's resistance to the negative effects of the external environment. Adaptogens include: ginseng, eleutherococcus, Chinese lemon, flower pollen, etc.

Among the non-hormonal methods of therapy, the use of iodine is widespread. In traditional methods of treating diffuse mastopathy, the use of 0.25% potassium iodide solution has a positive therapeutic effect. Due to the effect of potassium iodide on the gastric mucosa, iodomarin is used in a dose of 100-200 mg per day. Long-term use of iodine-preserving substances in the composition leads to the extinction of estrogen-producing function in the ovaries.

All women should definitely check the mammary glands prophylactically - practice shows that in most cases, women themselves can determine the hardening of the skin. There are many types of methods. The simplest and most popular of them is self-examination.

Different forms of mastopathy have different probabilities of transitioning to a malignant tumor of the breast. This size ranges from 0.1% in nodular types of dyshormonal dysplasia to 40% in some types of fibroadenomatosis.

Today, hundreds of causes of malignant tumor diseases are known to science. English scientists R. Doll and R. Pito calculated the relative share of various factors that cause cancer. The main place belongs to the dietary factor, which is 30-35% of the causes of cancer, smoking 30-32%, infectious agents 10%, industrial carcinogens 4%, alcohol 2%, oncological heredity 2%, ultraviolet rays of the sun and ionizing radiation. radiation in 1%, and finally cancer in 5% of cases due to unknown causes [15; pp. 88-89, 16; pp. 92-93].

Dietary factors are of great importance in the oncogenesis of mastopathy and SBS (RMJ). Success is achieved with the help of a special diet containing vitamins and minerals, iodine, immunomodulating and

antioxidant substances. The nature of food and diet affects the metabolism of steroid hormones.

It has been found that a diet with a sufficient amount of fat and meat products leads to a decrease in the amount of androgens in the blood plasma and an increase in the amount of estrogens, in addition, the production of carcinogenic substances increases. [67; pp. 45-46, 142; pp. 121-127].

Particular importance is attached to sufficient amounts of vitamins and coarse fiber in the diet, as its anticarcinogenic effect has been proven.

By binding to the female sex hormone estrogen in the gut, dietary fiber lowers the risk of disease. It is known that estrogen stimulates the growth of mammary tumors, therefore, if there is a family history of breast cancer, it is important to reduce its amount with the help of fiber [110; pp. 228-230, 198; pp. 550-555].

The main way to get fiber is to eat more fiber-rich fruits and vegetables like lettuce, broccoli, cauliflower, sardines (asparagus), and string beans, while limiting starchy foods like potatoes and refined flours and eating refined grains, rice, and more. , should be replaced with oats and legumes [74; pp. 8-9, 93; pp. 39-41].

In recent years, the attention of many representatives of medical science and practice to nutritional problems has increased. This situation is related not only to the negative health consequences of nutritional disorders, which are found everywhere and are widespread among the population, but also to the success of biochemistry, cell biology, genomics, proteomics and other fundamental sciences. When there is a risk of development of a number of diseases, the role of individual micro- and macronutrients, non-nutritive minor biologically active components of food has found its solution in managing the functional activity of organs and systems [112; pp. 5-14, 127; p. 95]. Due to the prevalence and clinical importance of mastopathy in women, it is important to develop new specialized products with good

absorption and minimal toxicity. According to some authors, it is necessary to create optimal dietary rations taking into account the effect of estrogen hormones to prevent and treat mastopathy [92; pp. 15-19, 154; p. 123-129].

The risk of developing mastopathy increases when consuming high-calorie foods, animal fats, high cholesterol and sugar products [126; p. 438, 193; pp. 1413-1421]. Meat can also be called a "dangerous" product, because hormones are sometimes added to the feed of cattle and birds in order to increase weight. Most of these hormones are then transferred to fat and meat. In addition, it has been determined that such a diet causes a change in the metabolism of hormones, which leads to an increase in the production of estrogens in human adipose tissue. This situation means that overweight is an important factor that increases the probability of developing mastopathy, and on its basis causes the development of various additional diseases [53, 96; pp. 4-11].

All of the above means that it is time for us to deal with issues of alimentary correction and prevention of mastopathy in women.

Dietary factors are of great importance in the oncogenesis of mastopathy and SBS. The nature of eating and diet affects the metabolism of steroid hormones.

Nowadays, diet therapy is widely used by doctors. However, for successful treatment, only high-quality herbal substances approved for the treatment of mastopathy are necessary. First of all, it is necessary to pay attention to cabbage, which contains certain substances that prevent estrogen from entering the tissues. Oranges, apricots, cranberries, blueberries, grapes, cherries, tangerines, apples, kiwis, tomatoes, dill and spinach also have this property. Legumes, buckwheat, peas, barley, beans are also recommended for the table of "estrogenic" women [23; pp. 28-32, 99; p. 34].

The diet is enriched with food made from refined grain products. Bread, cereal, crackers are eaten only with the addition of wheat bran. This increases the proportion of fiber in the diet, and allows you to fight cancer by

reducing the amount of estrogen [93; pp. 39-41, 154; p. 123-129]. Hormonal disorders and mastopathy can also be caused by an increase in the amount of androgens. Women with this problem are recommended to eat more bananas, pears, grapefruit, figs, potatoes, zucchini, onions, carrots, garmdori, radishes, beets, pumpkins, and dates. They contain estrogens that help stabilize hormonal balance in the body. Horseradish and garlic should be consumed regularly. Carbonated water and coffee are among the products that accelerate the development of the disease. There are also opinions that caffeine in coffee leads to the development of connective tissue and the appearance of cysts [34; pp. 14-17]. The consumption of coffee should be limited for another reason: it causes agitation and thus weakens the nervous system. Therefore, as much as possible, coffee should be replaced with herbal tea [110; 3rd p., 198; pp. 550-555].

There is a lot of information in the literature about the positive effect of vitamin therapy in patients with diffuse mastopathy [84; pp. 43-46]. Vitamins improve the function of the liver, which is involved in the inactivation of excess estrogens, which accelerate mastopathy.

Vitamin A and its analogues (analogues) lead to the normalization of the functional indicators of the epithelium, have the property of controlling the differentiation processes of the epithelium. Studies have shown that retinoids have an anti-carcinogenic effect. Vitamin A is contained in cow's milk, butter, eggs, kidney, fish oil. Carotene (provitamin A) is stored in green peas, sweet red garmdori, parsley, shallots, apricots, peaches, oblepikha, namatak [105; pp. 12-16, 107; p. 548].

Vitamin C is considered an inhibitor of "endogenous carcinogenesis", and due to it, the level of nitrogen compounds in the body decreases. It inhibits the conversion of ammonia salts into nitrates and prevents cells from becoming a poor quality transformation. Vitamin C as an antioxidant prevents the formation of free radicals that damage mammary cells and increase the likelihood of tumor development [35; pp. 22-26, 48; pp. 84-88].

Vitamin D increases the life expectancy of breast cancer patients, but the reasons for this effect are not yet clear. It is only known that in laboratory studies, this vitamin inhibits the proliferation of tumor cells [47; pp. 38-40].

Vitamin E (L-tocopherol) inhibits the formation of oxygen radicals, has an anticarcinogenic effect. In patients with dysplasia, the normalizing effect of L-tocopherol on the amount of blood hormones is observed. It is recommended in dyshormonal metaplasia of the mammary glands, which is based on the hypofunction of the corpus luteum. Vitamin E is present in the green part of plants, especially in young sprouts of coniferous plants, in vegetable oils (sunflower, corn, cotton, soybean, safflower, peanut). Vitamin E reduces the risk of developing precancerous conditions (which may later be of poor quality) in the mammary glands ([98; pp. 19-27]. Vitamin V6 (pyridoxine) reduces prolactin secretion. Under the influence of prolactin, the amount of estrogen receptors in the mammary gland increases, the epithelium cell growth accelerates and greatly affects the development of benign and malignant diseases of the mammary glands [107; p. 548].

Based on the above, the nature of nutrition, the study of morbidity, as well as dietary fiber, etc. researches directed to the development of special products enriched with are relevant and promising in the treatment of women suffering from mastopathy. Similar studies have not been conducted in our country.

Thus, research aimed at correcting the eating habits, morbidity, and diet of women suffering from mastopathy is relevant.

2. Features of the epidemiology of mastopathy

Mastopathy is the most common safe pathology of the mammary glands. Currently, 20% of women over the age of 20 and 40% of women over the age of 40 have mastopathy. In recent years, the incidence of mastopathy has been increasing. In addition, due to the development of breast cancer in a gland where there is a benign disease, optimal conditions for the

development of the early stages of breast cancer (SBS) can be created precisely on the basis of benign diseases.

The increase in the incidence of benign diseases of the mammary gland, in particular, mastopathy, is mainly related to external environmental factors, changes in women's living conditions and lifestyle, reproductive function and nutrition.

From the initial point of view, mastopathy looks like a relatively safe disease. It not only reduces the quality of life of patients, but also causes the development of cancer and can later lead to the death of women in the prime, active, working age. Therefore, in-depth study of not only the clinical aspects of mastopathy, but also its epidemiology, the causes of their development, as well as the health of women, especially women with mastopathy, is of great importance from the point of view of early identification of risk factors for the development of mastopathy and implementation of primary prevention.

Researches were carried out at the Department of Children, Adolescents and Nutritional Hygiene of the Tashkent Medical Academy, at the oncology laboratory of the Republican Specialized Oncology and Radiology Scientific and Practical Medical Center - RIORIATM, at the bread factory number 1 in Tashkent, at the DSENM laboratory in Tashkent. Based on the data of the oncological dispensary of the Tashkent city for the last five years (2013-2017), the materials for recording the complaints and illnesses of women living in the city of Tashkent on breast pathology were taken as research objects.

In the conducted studies, the eating habits and quality of 825 women with mastopathy were studied using a questionnaire questionnaire.

The number of women under control by age groups and years in the years of scientific research was 138 out of 155, and when the distribution by age group was studied, it was from 60 to 250, the most of them, that is, out of 250, 30-39-year-old and 40-49-year-old women organized. It made up 30.3%

of them. The least common indicator was 60 people (7.2%).

Most of the examined 825 women with mastopathy (87%) belong to Uzbek nationality. In addition, the percentage of Russians, Tatars, and Tajiks was 4.14%, and Koreans (0.59%) were among the women under surveillance. the number of women's appeals to the city oncological dispensary is increasing year by year (Table1).

Women's appeals to the city oncological dispensary for breast pathology (2013-2017).

Appeals and their reasons	Years under study				
	2013	2014	2015	2016	2017
Total appeals (absolute numbers)	9190	9754	10650	11781	13191
Including Primary (%)	78,4	63,4	67,7	56,9	62,2
repeat (%)	21,6	36,4	32,3	43,1	37,8
Of all referrals for safe diseases of the mammary gland (%)	58,6	60,2	58,0	58,0	58,4
Including mastopathy (%)	60,6	63,9	64,8	76,4	88,0
Of them on fibrocystic mastopathy	26,8	28,0	32,4	32,5	37,9

The data presented in Table 1 show that women's appeals to the oncodispensary increased year by year during the studied period. Although the dynamics of women's appeals for benign diseases of the mammary gland has not changed, the appeals for mastopathy, especially fibro-cystic mastopathy, tend to increase, and as a result, the incidence of mastopathy in women has increased during the studied period.

We also focused on women's referrals for SBS. This indicator was 3.8-4.8% of all those who applied to the city oncology dispensary. A survey-interview of these women showed that 67.1% of them had undergone mastopathy before.

The largest relative share (27.18%) of all mastopathy diseases registered in the oncodispensary of Tashkent is 40-49 years old. The next place in order

was occupied by 30-39 years old (23.9%), while the lowest relative share was found at the age of 60 and older (14.12%)

(Figure1).

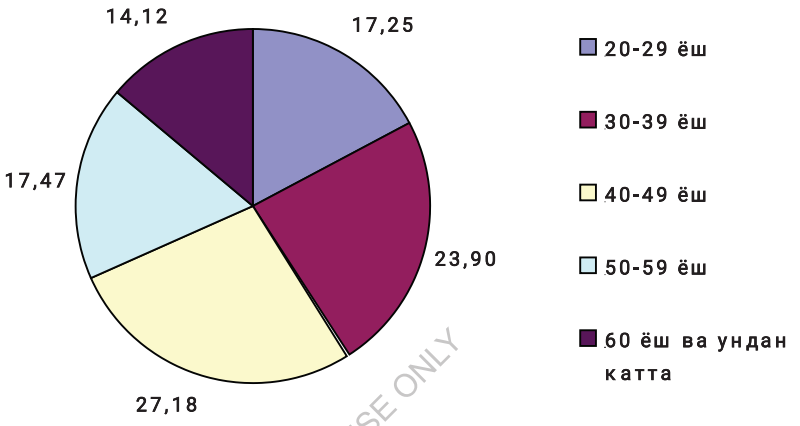


Figure 1. Composition of mastopathy by age (on average over five years: (2013-2017), %.

So, women suffer from mastopathy at the age of the most active working capacity (30-49 years). In our opinion, this situation is related to their labor activity, slower reproductive activity: lower fertility and limitation and even cessation of breastfeeding.

Seasonality of incidence (application) of women with mastopathy (average for 2013-2017)

Months of the year	Percentage of comparison (%)	Average number of requests per month (throughout the year)
January	5,83	27,3
February	7,16	33,6
March	9,69	45,40
April	11,37	53,2
May	7,76	36,4
June	6,76	30,3
July	7,00	32,8
August	8,06	37,8
September	8,81	41,3
October	10,68	50,0
November	9,39	44,0
December	7,75	36,3
Total	100	39,0

In the studied years (2013-2017), the highest average number of applications for registered diseases was March (45.4), April (53.2), September (41.3), October (50.0), November (44 ,0), the average number of registered diseases during the year was equal to 39.0. So, the incidence of mastopathy in women living in Tashkent has certain seasonality. The number of cases is recorded in the spring and autumn periods of the year, with the peak of cases in April (53.2) and October (50.0) of the year. A certain degree of seasonality of mastopathy may be related to climate change, weather conditions, reactivity of women's body and lifestyle related to certain periods of the year. Thus, it is necessary to take into account the seasonality of mastopathy when planning primary and secondary prevention measures.

The increase in the incidence of mammary gland pathology, in particular, mastopathy, does not fail to reflect on the general state of women's health

and their quality of life.

Using the method of random sampling, we studied the dynamics of morbidity among women who applied for mastopathy in five years. 20% of women who applied to the oncology dispensary were selected, which was representative of the general population, and provided an opportunity to obtain accurate and reliable results about the dynamics of the general morbidity of women by the class of diseases, women's age and years.

The research results showed that the total incidence rate of women suffering from mastopathy was 1590.3‰, the first place in the composition and level of the total morbidity of women suffering from mastopathy was occupied by diseases of the genitourinary organs (17.4% and 276.4‰) (3 -figure and Table 3). Salpingitis and oophoritis (35.2%), inflammation of the cervix (33.9%) and menstrual disorders (21.8%) took an important place in the composition of urogenital diseases.

It was found that the endocrine system and nutrition and metabolic disorders (13.8% and 219.4‰) occupied the second place in the overall morbidity of women. Thyroid pathology (73.9%) and obesity (26.1%) were noted as the most common pathologies among endocrine system and nutritional and metabolic disorders.

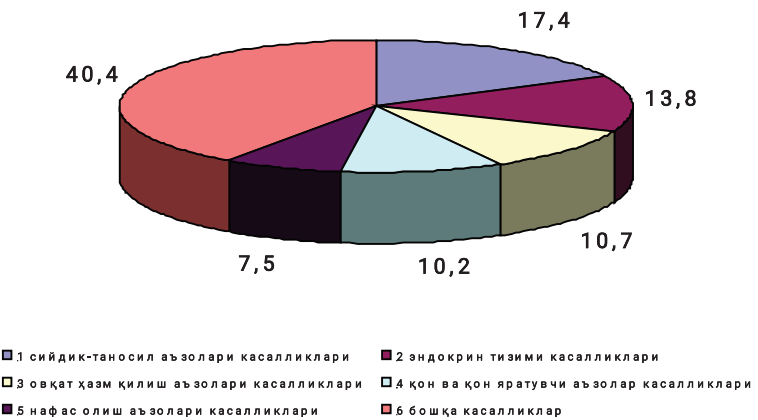


Fig. 3. Composition of the general morbidity of women with mastopathy (% of completion)

Diseases of the digestive organs (10.7% and 169.7%o) took the third place in the overall morbidity according to the in-depth medical results. Among diseases of the digestive organs, liver and gallstone diseases, cholecystitis were detected in 82.4% of cases, and inflammation of the stomach was detected in 17.6% of cases.

Diseases of the blood and blood-forming organs are also common among women (fourth place - 10.2% and 162.4%o). Among such pathologies, iron deficiency anemia took the leading place (65.7%).

The fifth place in the overall morbidity of women suffering from mastopathy was respiratory diseases (7.5% and 118.8%o). Among the diseases of the respiratory organs, it was found that ARVI and influenza (58.2%), chronic tonsillitis (23.0%) and acute bronchitis (21.8%) were common. The mentioned 5 classes of diseases accounted for 60% (59.6%) of all diseases of women with mastopathy.

As a result of the analysis of the general morbidity of women suffering from mastopathy, it should be noted that despite the prevalence of various pathologies among women, severe forms of chronic diseases were not found.

Table 3

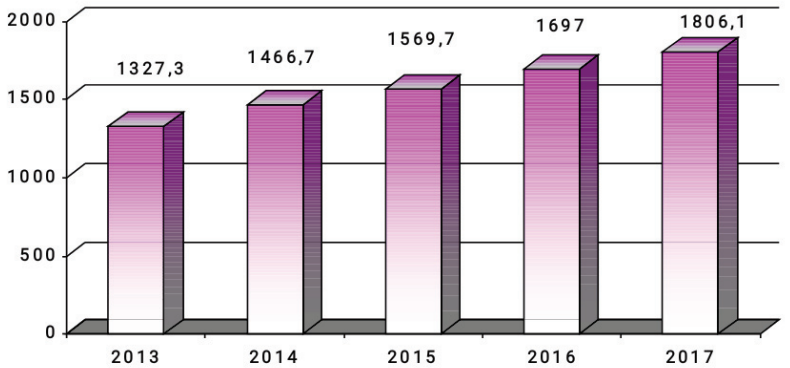
General morbidity of women with mastopathy composition and level

Class of diseases		Composition (%)	Level (X)
I	Infectious and parasitic diseases	2,5 ± 0,4	40,0±6,8
II	Tumors	2,2 ± 0,4	35,2±6,4
III	Diseases of the blood, hematopoietic organs, and specific disorders associated with involvement of the immune mechanism	10,2±0,8	162,4±12,8
IV	Disorders of the endocrine system and nutrition and metabolism	13,8±1,0	219,4±14,4
V	Mental disorders and personality disorders	2,9± 0,5	46,1±7,3

VI	Diseases of the nervous system	2,4±0,4	38,8±6,7
VII	Diseases of the eye and its accessory parts	7,4±0,7	117,6± 11,2
VIII	Ear and mammary tumor diseases	7,4 ± 0,7	117,6± 11,2
IX	Diseases of the circulatory system	5,6 ±0,6	89,7 ± 9,9
X	Diseases of respiratory organs	7,5±0,7	118,8±11,3
XI	Diseases of digestive organs	10,7±0,9	169,7±13,1
XII	Skin and subcutaneous tissue diseases	2,4±0,4	38,8±6,7
XIII	Diseases of the bone-joint system, muscles and connective tissue	2,7±0,4	42,4±7,0
XIV	Diseases of the genitourinary organs	17,4±1,0	276,4±15,6
XV	Pregnancy, childbirth and the postpartum period	6,2±0,7	98,2±10,4
XVI	In special cases, for the perinatal period	7.4 ± 0.7	117.6± 11.2
XVII	Congenital anomalies (birth defects), deformation and chromosomal disorders	5.6 ±0.6	89.7 ± 9.9
XVIII	Signs and symptoms of deviations from the norm	7,5±0,7	118,8±11,3
XIX	Injuries, poisoning and complications of various external effects	10,7±0,9	169,7±13,1
XX	External causes of morbidity and mortality	2,4±0,4	38,8±6,7
XXI	Factors affecting the health of the population and their application to health care institutions	2,7±0,4	42,4±7,0
XXII	Codes for special purposes	1,4±1,0	38,8±15,6
	Total	100	1590,3±33,7

A dynamic study of the overall morbidity of women with mastopathy showed a tendency for this indicator to increase during 2013-2017.

(Fig.4).



4-pictures. The level of general morbidity of women with mastopathy.

In 2013, the total incidence rate of women with mastopathy was 1323.7 cases per 1000 women, and in 2017 it was 1806.1 cases, which means that in the last five years, the total incidence rate of women has increased by 478.8 cases per 1000 women (R<0.01).

The increase in the total incidence of diseases of urogenital organs (218.2‰ and 333.3‰), diseases of the endocrine system (175.8‰ and 272.7‰), diseases of blood and blood-forming organs (133.3‰ and 169.7 ‰), diseases of the digestive system (151.5‰ and 175.8‰) and diseases of other classes are associated with increasing dynamics (Table 4).

Also, when the general morbidity of women was studied in relation to age, it was found that its level increases with increasing age of women.

The lowest level of total morbidity was found at the age of 20-29 years (1381.3‰), while the highest level was recorded at the age of 50-59 years (1990.5±137.0). The increase in the overall incidence rate of women suffering from mastopathy was determined mainly due to the increase in

diseases of the urogenital system (231.3‰ and 416.7‰).

(Table5).

Total incidence of women with mastopathy (per 1000 women, ‰)

Classes of diseases		2013	2014	2015	2016	2017	Ўртача
I	Infectious and parasitic diseases	36,4±14,6	30,3±13,3	42,4±15,7	42,4±15,7	48,5±16,7	40,0±6,8
II	Tumors	36,4±14,6	42,4±15,7	36,4±14,6	36,414,6	24,2±12,0	35,2±6,4
III	Diseases of blood, blood-forming organs	133,3±26,5	181,8±30,	151,5±27,9	175,8±29,6	169,7±29,2	162,4±12,8
IV	Disorders of the endocrine system and nutrition and metabolism	175,8±29,6	181,8±30,0	242,4±33,4	224,2±32,5	272,7±34,7	219,4±14,4
V	Mental disorders and personality disorders	30,3±13,3	36,4±14,6	36,4±14,6	60,6±18,6	66,7±19,4	46,1±7,3
VI	Diseases of the nervous system	18,2±10,4	30,3±13,3	42,4±15,7	48,5±16,7	54,5±17,7	38,8±6,7
VII	Diseases of the eye and its auxiliary part	78,8±21,0	72,7±20,2	97,0±23,0	103,0±23,7	133,3±26,5	97,0±10,3
VIII	Ear and mammary tumor diseases	109,1±24,3	97,0±23,0	121,2±25,4	127,3±25,9	133,3±26,5	117,6±11,2
IX	Diseases of the circulatory system	84,8±21,7	78,8±21,0	97,0±23,0	84,8±21,7	103,0±23,7	89,7±9,9
X	Diseases of respiratory organs	103,0±23,7	109,1±24,3	121,2±25,4	133,3±26,5	127,3±25,9	118,8±11,3
XI	Diseases of digestive organs	151,5±27,9	181,8±30,0	163,6±28,8	175,8±29,6	175,8±29,6	169,7±13,1
XII	Skin and subcutaneous tissue diseases	18,2±10,4	48,5±16,7	42,4±15,7	36,4±14,6	48,5±16,7	38,8±6,7
XIII	Diseases of the bone-joint system, muscles and connective tissue	48,5±16,7	24,2±12,0	24,2±12,0	60,6±18,6	54,5±17,7	42,4±7,0
XIV	Diseases of the genitourinary organs	218,2±32,2	248,5±33,6	278,8±34,9	303,0±35,8	333,3±36,7	276,4±15,6

XV	Pregnancy, childbirth and the postpartum period	84,8±21,7	103,0±23,7	72,7±20,2	84,8±21,7	60,6±18,6	81,2±9,5
Total		1327,3±51,3	1466,7±64,4	1569,7±73,6	1697,0±84,7	1806,1±93,9	1590,3±33,7

(Table 5)

Age-related incidence rate of women with mastopathy (per 1000 women, ⊠)

Class of diseases		20-29 young	30-39 young	40-49 young	50-59 young	60 <	Total
I	Infectious and parasitic diseases	25,0±12,3	40,0±12,4	44,0±13,0	28,6±16,3	83,3±35,7	40,0±6,8
II	Tumors	43,8±16,2	28,0±10,4	28,0±10,4	38,1±18,7	66,7±32,2	35,2±6,4
III	Diseases of blood, blood-forming organs	131,3±26,7	112,0±19,9	208,0±25,7	209,5±39,7	183,3±50,0	162,4±12,8
IV	Disorders of the endocrine system and nutrition and metabolism	175,0±30,0	192,0±24,9	236,0±26,9	295,2±44,5	250,0±55,9	219,4±14,4
V	Mental disorders and personality disorders	31,3±13,8	40,0±12,4	72,0±16,3	38,1±18,7	16,7±16,5	46,1±7,3
VI	Diseases of the nervous system	56,3±18,2	28,0±10,4	32,0±11,1	38,1±18,7	66,7±32,2	38,8±6,7
VII	Diseases of the eye and its auxiliary part	75,0±20,8	100,0±19,0	104,0±19,3	114,3±31,0	83,3±35,7	97,0±10,3
VIII	Ear and mammary tumor diseases	106,3±24,4	108,0±19,6	108,0±19,6	142,9±34,1	183,3±50,0	117,6±11,2
IX	Diseases of the circulatory system	81,3±21,6	72,0±16,3	92, 0±18,3	123,8±32,1	116,7±41,4	89,7±9,9
X	Diseases of respiratory organs	112,5±25,0	116,0±20,3	108,0±19,6	133,3±33,2	166,7±48,1	118,8±11,3
XI	Diseases of digestive organs	112,5±25,0	184,0±24,5	168,0±23,6	219,0±40,4	183,3±50,0	169,7±13,1
XII	Skin and subcutaneous tissue diseases	18,8±10,7	40,0±12,4	36,0±11,8	66,7±24,3	50,0±28,1	38,8±6,7
XIII	Diseases of the bone-joint system, muscles and connective	25,0±12,3	48,0±13,5	44,0±13,0	47,6±20,8	50,0±28,1	42,4±7,0

	tissue						
XIV	Diseases of the genitourinary organs	231,3±33,3	232,0±26,7	280,0±28,4	361,9±46,9	416,7±63,6	276,4±15,6
XV	Pregnancy, childbirth and the postpartum period	156,3±28,7	116,0±20,3	52,0±14,0	133,3±33,2	0,0	98,2±10,4
Total		**1381,3±57,4**	**1456,0±51,5**	**1612,0±62,8**	**1990,5±137,0**	**1916,7±171,1**	**1590,3±33,7**

The highest incidence rate of infectious and parasitic diseases, tumors, nervous system, ear and mastoid tumor, respiratory organs, urogenital system diseases corresponds to the age of 60 and older. The highest incidence rate of diseases of blood and blood-forming organs, endocrine system, eye and its auxiliary part, and digestive organs was determined at the age of 50-59 years, while the highest incidence rate of mental disorders was recorded at the age of 40-49 years in women.

Thus, mastopathy is a multifactorial disease, and our research once again confirms that, along with external factors, chronic inflammatory processes in the small pelvis, as well as the presence of diseases of the genitals, are one of the main causes of mastopathy [68; pp. 35-38].

Dysfunction of the thyroid gland, endemic goitre, obvious or hidden hypothyroidism take a special place among the negative factors in the occurrence of mastopathy. In addition, mastopathy can develop when liver activity is impaired. This disease is also typical for women with a history of cholecystitis or hepatitis [72; p. 10].

Based on the results of an in-depth study of the incidence of mastopathy and the general morbidity of women suffering from mastopathy, the following conclusions were reached:

1. Mastopathy accounts for an average of ¾ of all referrals of women for safe diseases, and it has a tendency to increase over the last five years. The highest percentage of mastopathy was determined in the most working and active age

of women (30-49 years).

2. The incidence of mastopathy has certain seasonality. Mastopathy is registered more often in the spring and autumn periods of the year. The peak of consultation with mastopathy falls on April and October of the year. When planning primary and secondary preventive measures, it is necessary to take into account the seasonality of the incidence of mastopathy.
3. The level of total morbidity of women suffering from mastopathy was 1590.3 cases per 1000 women. In the last five years under study, from 1,327.3 to 1,916.7 cases per 1,000 women, the overall incidence rate increases with increasing age of women. In women, the lowest level of total morbidity was found at the age of 20-29 years (1381.3‰), the highest level at the age of 50-59 years (1990.5‰).
4. Urinary system, endocrine system and disorders of nutrition and metabolism, digestion, blood and blood-forming organs, and respiratory diseases took the leading place in the general diseases of women with mastopathy. 60% of all diseases of women suffering from mastopathy corresponded to the mentioned five classes of diseases.
5. When planning and implementing the primary and secondary prevention of mastopathy in women, it is necessary to pay special attention to the prevention of pelvic inflammatory processes, gynecological diseases, thyroid gland diseases, diseases of the digestive organs, and the formation of healthy lifestyle skills.

3. THE ROLE OF MEDICAL-BIOLOGICAL AND SOCIAL-HYGIENIC FACTORS IN THE DEVELOPMENT OF MASTOPATHY.

The effects of medical-biological and social-hygienic risk factors on the body of women included in the main and control groups were studied using specially developed questionnaires. The first part of the questionnaire includes questions regarding the evaluation of women's health status, the specificity of their obstetric anamnesis and the prevalence of diseases

among them; the second part included questions on studying the socio-hygienic conditions of women's lifestyle, eating habits and the description of the consumption of basic food products.

In order to evaluate the role of medical and biological risk factors in the development of mastopathy, attention was paid to the following: age of onset of menarche; duration of the menstrual cycle; chest pains and their dependence on menstruation; woman's age at marriage; the number of pregnancies and abortions; childbirth complications; the age of the woman at the time of the first child; number of children; duration of breastfeeding; the presence of breast pathology in offspring; chest trauma; prevalence of acute and chronic diseases among women; the passage of sex life.

In the 19th century, menarche occurred in girls at about 17 years of age, and menopause in women at 40 years of age, while today this process occurs at 12-14 and 50-52 years, respectively [82; pp. 52-56, 160; pp. 435-449]. We conducted a survey to determine the age of onset of menarche among the women under study. Table 6 presents the collected data on the age of onset of menarche.

From the data presented in Table 6, it can be seen that in about 1/3 of women suffering from mastopathy, menarche started later, that is, at the age of 15-17 years.

1 percent of women have a menstrual cycle of 30 days.

Table 6

Distribution of women according to the age of onset of menarche, (%)

The indicator	The average age of women					Average
Age of onset of menarche	20-29	average	40-49	50-59	60-69	
12-14 young	82,9	52	70,7	65	66,7	66,3
15-17 young	17,1	48	29,3	35	33,3	33,7

A woman's body is naturally programmed to bear children many times (5 or more) and breastfeed many times. If this situation does not occur, a large amount of female hormone estrogen accumulates in the body, including the breast, which often causes pain in the breast, especially in the second half of the menstrual cycle [51; pp. 296-298, 53]. 60.9% of the women under the study said that their breast pain is related to the menstrual cycle. In other women, breast pain is permanent.

From the point of view of modern scientists, reproductive factors remain the most dangerous factor in the development of matopathy. For example, a woman who could not become a mother during her life, or a mother who gave birth to her first child after the age of 30, are at almost the same level and intensity of the risk of developing mastopathy [51; pp. 296-298, 53]. 49.1% of the women under study gave birth to their first child between the ages of 20-29 (Table 7). 46.2% of women suffering from mastopathy reported that they became mothers early, and 4.73% - at the age of 30 and older. Women who become mothers in their 30s and older experience significant long-term effects of estrogen. This increases the risk of developing mastopathy.

Table 7

Distribution of women into groups, taking into account the age of the woman at the time of the first child, (%)

A woman's age at first child birth	20-29	30-39	40-49	50-59	60	Average
Under 20 years	48,8	50	19	25	0	46,2
Between the ages of 20-29	43,9	38	60,3	75	16,7	49,1
Age 30 and older	7,32	12	20,7	0	83,3	4,73

Artificial termination of pregnancy significantly increases the risk of developing mammary gland pathology. The risk of developing mastopathy is

7.2 times higher in women who have had 3 or more abortions [69; p. 20, 73; pp. 5-8]. Abortion stops the proliferative processes in the mammary glands, and the tissue develops in reverse. These regressive changes occur unevenly, so the development of glands can be pathological.

Table 8 presents the collected data on some indicators of women's obstetric history. The table shows that 10.7% of the women under study were not pregnant at all. The rest had between one and nine pregnancies, including two -thirds of women from two to four pregnancies. But not all pregnancies end in childbirth. More than half of the women under study (53.3%) had artificial termination of pregnancy (abortion) one or more times during their life. 1/3 of women suffering from mastopathy stated that they had abortions from 2 to 4 times. To prevent unplanned pregnancy, many drugs have been developed today. Of course, the reception of hormonal drugs significantly eases the life of women, controls the amount of calcium, supports the cardiovascular system. However, taking hormonal drugs for 10 years increases the risk of breast cancer

It has been proven that it leads to a 2-fold increase [101; pp. 3-7, 123; pp. 40-45].

Table 8

Distribution of women according to some indicators of obstetric history, (%)

Indicators	Age of women					
Number of pregnancies	20-29	30-39	40-49	50-59	60-69	Average
1 time	19,5	2	0	20	25	7,1
2 times	31,7	22	10,3	40	0	16,6
3 times	29,3	24	15,5	15	16,7	24,6
4 times	9,76	18	20,7	20	16,7	14,2
5 times	0	18	19	0	8,33	11,2
6 times	0	10	12,1	0	0	8,28

7 times	0	0	10,3	0	0	2,37
8 times	0	0	8,62	0	0	3,55
9 times	0	0	1,72	0	0	1,18
Not pregnant at all	9,76	4	1,72	0	16,7	10,7
Number of abortions						
1 time	26,8	24	10,3	35	8,33	17,2
2 times	9,76	20	32,8	15	33,3	21,9
3 times	0	10	10,3	5	16,7	7,69
4 times	0	2	8,62	0	0	3,55
5 times	0	0	5,17	0	8,33	1,78
6 and more	0	0	3,45	0	0	1,18
There was no abortion at all	63,4	44	29,3	45	33,3	46,7
Number of children						
1	22	6	0	20	33,3	11,2
2	53,7	30	25,9	35	8,33	29
3	14,6	50	56,9	20	33,3	39,6
4	0	10	13,8	10	0	7,69
5	0	0	1,72	15	0	0,59
He had no children at all	9,76	4	1,72	0	25	11,8

In the 19th century, women often gave birth and breastfed for a long time, and in the 21st century, women often have one or two children. As a result, modern women feel significantly longer effects of estrogens [71; pp. 69-70, 83, 96; pp. 4-11]. 11.8% of the women under study did not have children at all. The rest had from one to five children, including 68.9% of women had 2-3 children.

In addition to pregnancy and lactation, an increase in the level of prolactin can be the cause of various forms of mastopathy. Considering this situation, the results of the survey showed that about 8% of the women under the study did not breastfeed at all, 56.8% breastfed until 2-3 years of age (Table 9).

(Table 9).

According to the duration of breastfeeding women distribution, (%)

Duration of breastfeeding	Age of women					Average
	20-29	30-39	40-49	50-59	60-69	
Did not breastfeed at all	19,5	4	1,72	20	25	7,69
up to 3 months	7,32	2	8,62	5	16,7	6,51
From 6 months to 1 year	26,8	40	27,6	30	25	29
up to 2 years old	36,6	48	37,9	45	33,3	41,4
up to 3 years old	9,76	6	24,1	0	0	15,4

Injuries to the mammary glands lead to unpleasant consequences. Information is given in the literature that small injuries caused by subway, bus crushes, accidentally hitting the breast area with an elbow or a bag can increase the risk of developing mastopathy [51; pp. 296-298, 53]. 60.4% of the women under our observation confirmed that they had received breast trauma.

According to some scientists, inflammatory diseases of the genitals, diseases of the liver, bile ducts and gall bladder, and various diseases of the thyroid gland are important reasons for the development of mastopathy. Inflammatory diseases of the genitals can cause hormonal imbalance in the body. The breast area is the first to be sensitive to hormonal disorders [61; pp. 17-22]. The liver plays a very important role in breaking down excess estrogen produced. In liver diseases, this characteristic decreases and the risk of developing mastopathy increases [51; pp. 296-298, 53]. This point of view can be confirmed based on the results of our research. According to the data presented in Table 10, it was found that 56.2% of the women under study had genital inflammatory diseases, 54.4% - diseases of the liver and bile ducts, and 63.3% - thyroid gland diseases.

Table 10

Distribution of women according to the presence of some comorbidities, (%).

Indicators	Age of women					Average
Inflammation in the genitals	20-29	30-39	40-49	50-59	60	
No	42,5	58	37,9	30	83,3	43,8
There is	57,5	42	62,1	70	16,7	56,2
Endemic smallpox						
No	22	58	39,7	50	50	36,7
There is	78	42	60,3	50	50	63,3
Diseases of the liver, gallbladder and biliary tract						
No	43,9	50	50	45	35	45,6
There is	56,1	50	50	55	65	54,4

According to V.P. Kharchenko (1996), frequent ARVI, angina and pharyngitis can cause hormonal imbalance in the body. The breast area is one of the first to be sensitive to hormonal disorders. Considering this situation, we collected data on upper respiratory tract diseases and their recurrence in one year in women with mastopathy. The analysis of the collected data showed that 55 percent of women get sick with upper respiratory tract diseases several times a year.

According to E.I.Zagrekova (2002) and A.L.Kantsaliev (1998), hormonal imbalance in women's body can also be caused by lack of regular sexual life. 26.6% of the control women reported the absence of a spouse. "How's your sex life?" to the question, 45.1% of women reported that their sex lives are irregular (Table 11).

Table 11

Distribution of women into groups, taking into account the nature of their sexual life, (%)

How is your sex life?	20-	30-	40-	50-	60	ўртача

	29	39	49	59		
out of order	58,5	55,7	43,1	35,3	33,3	45,1
Periodic	31,5	31,3	36,6	25,2	16,2	28,1
He does not live a sexual life	10,0	13%	20,3	39,5	50,5	26,6

Literature sources show that women's loneliness, lack of strong family relationships - all this can stimulate the development of pathological processes in the breast [23; pp. 28-32].

The results of the body mass index of the control women are presented in Table 12.

We found that 46% of the women under control have a normal body weight (TVI ratio of 18.5-24.5 kg/m2), and the number of women with a normal body weight decreases with age (Table 12).

(Table 12).

Distribution of women in groups according to body mass index, (%)

TVI	20-29	30-39	40-49	50-59	60 and big	Average
Normative	83	56	20	15	0	46
Too much	17	44	62	65	0	41
obesity 1	0	0	18	20	33,3	6,2
obesity 2	0	0	0	0	33,3	3,3
obesity 3	0	0	0	0	33,4	3,5
Total	100	100	100	100	100	100

The number of women with a normal body weight at the age of 20-29 was high (83%), women at the age of 60 and older with a normal body weight were not found at all.

Scientists call mastopathy a gynecological disease caused by many factors, i.e. hereditary (genetic) factors, environmental and lifestyle factors. The risk of genetic predisposition to CHD is not so great, it does not exceed 5-10%. To date, only one gene has been identified that "responds" to 60% of tumor development [41; pp. 45-48, 55; pp. 35-39]. "Does your mother have breast

pathology?" the question was asked. 58.6% of women answered "Yes" to this question. This information allows us to assume that the genetic factor is also important in the development of mastopathy.

The results of the analysis of the received data showed that the increased risk of developing mastopathy is also related to medical and biological factors. Among these factors, the most important risk factors for the development of mastopathy were: late menarche

(15-17 years old) onset, late motherhood, artificial termination of pregnancy, non-breastfeeding or short-term breastfeeding, presence of concomitant diseases (inflammatory diseases of the genitals, diseases of the liver, biliary tract and gall bladder, various diseases of the thyroid gland), sexual Irregular life course, abnormal size of TVI, genetic predisposition and chest trauma.

To date, there is evidence that the effectiveness of health-prophylactic measures conducted among women with a high level of education and social status is higher than the effectiveness of measures conducted among women with a low level of education and social status [85; p. 535, 153; pp. 133-140]. Data on the level of cultural education and social status of women are presented in Table 13.

Table 13

Distribution of women in the comparison groups by level of education and social status (%)

Level of information	20-29	30-39	40-49	50-59	60 and big	Average
High	22	40	41,4	20	33,3	44,4
Medium	63,4	48	27,6	65	50	39,1
incomplete medium	14,6	12	31	15	16,7	16,6
Social status						
Worker	19,5	58	37,9	40	25	33,1
Servant	17,1	28	19	15	33,3	25,4
temporary housekeeper	43,9	10	32,8	20	0	26,6

Never worked	17,1	4	10,3	20	33,3	14,2
A student	2,44	0	0	0	0	0,59
Invalid	0	0	0	5	8,33	0

It was found that 44.4% of the women under observation had higher education, and the rest had secondary and incomplete secondary education. 1/3 of women are workers and 1/4 are employees in state enterprises.

According to the literature, a higher rate of disease is characteristic for women living in unfavorable living conditions [173; pp. 185-197]. Taking this into account, we studied the living conditions of women.

Most of the women in the comparison groups (98.7%) have acceptable living conditions, since they live in a private house with all communal facilities (60.8%) or in a separate apartment (37.8%). 47.3% of those examined had more than 9 m2 of living space per family member. 87.5% of the inspected families have a central heating system and hot water (local heating in the rest). Only 0.9% of families live in rentals or dormitories with limited amenities.

Among the environmental and lifestyle factors, "Do you interact with harmful factors at work?" 42% of women under observation answered "Yes" to these questions

(Table 13). Most of the women who were monitored for harmful factors at work (16%) reported exposure to noise, 10.7% exposure to pesticides, about 6% exposure to vibration, as well as contact with gas (5.33%) and X-rays (4.14%) (Table 14).

One of the most important components of a healthy lifestyle is the rational organization of work and rest. Correct and strict adherence to the daily routine leads to the accurate functioning of the body, which creates the most favorable conditions for work and rest, and at the same time helps to strengthen health [146; pp. 357-367, 147; pp. 581-587].

Table 14

Distribution of women into groups based on communication with harmful

factors in the workplace, (%)

Harmful factors in the workplace	20-29	30-39	40-49	50-59	60 and higher	average
does not interact with harmful factors	92,7	46	53,4	40	0	58
Gas	0	14	3,45	35	16,7	5,33
Noise	2,44	24	17,2	0	33,3	16
Vibration	0	0	0	5	8,33	5,92
Pesticide	4,88	16	0	10	16,7	10,7
x-rays	0	0	0	10	25	4,14
Total	100	100	100	100	100	100

A decrease in physical activity causes the development of diseases in the cardiovascular, respiratory, digestive, musculoskeletal and other systems. After a long day of work, active rest in the open air is a powerful health factor that improves blood oxygenation, increases lung ventilation, normalizes the neurodynamics of the cortex, and restores the body's ability to work [147; pp. 581-587]. Our research showed that most women prefer watching TV and talking on the phone in their free time (Table 15).

1/4 of the women under observation do not walk at all, and 61% do not walk in enough fresh air.

One of the serious problems affecting health today is bad habits (drinking alcohol, smoking tobacco). These habits that affect health are the causes of many diseases, shorten life, reduce work capacity, and have a bad effect on health. English scientists R.Doll and R.Pito calculated the relative share of various factors that cause COPD: smoking accounts for 30-32%, and alcohol for 21%. According to the researchers' data, the earlier a person starts smoking, the more life-threatening diseases such as chronic bronchitis, pulmonary emphysema, cardiovascular disease and lung cancer will develop

[112, 113].

Table 15

Distribution of women in groups according to adherence to some principles of a healthy lifestyle, (%)

Duration of watching TV shows		
- up to 1 hour	24,6	38,8
- 1-2 hours	36,4	23,1
- 2-3 hours	13,4	18,7
- does not see at all	25,6	19,4
Duration of watching TV shows		
- up to 1 hour	39,5	30,0
- 1-2 hours	21,4	23,1
- 2-3 hours	22,8	25,5
- does not see at all	26,3	21,4
Walking in the fresh air		
- up to 1 hour	19,5	13,5
- 1-2 hours	16,5	4,5
- 2-3 hours	29,4	37,6
- does not see at all	34,6	44,4

The analysis of the received data shows that 92.9% of women are free from harmful habits. About 6% of women under observation drink alcohol, 1.2% - smoke tobacco. An important aspect of a healthy lifestyle is the elimination of harmful habits among women.

Dietary factors are of great importance in mastopathy and KBS oncogenesis. Success is achieved with the help of a special diet containing vitamins and minerals, iodine, immunomodulating and antioxidant substances. The nature of food and diet affects the metabolism of steroid hormones. In order to

assess the dietary pattern and quality of the women under observation, we studied the actual diet by questionnaire.

Information on the actual nutrition and vitamin supplementation of women with mastopathy is fully presented in Chapter 5. 63.9% of women follow the diet, and in the rest of the women, eating disorders, such as not eating on time, eating at night, eating high-calorie foods, were identified. Deficiency of consumption of milk and dairy products (especially cottage cheese), eggs, vegetable oil, vegetables and fruits was noted.

The results of the analysis of the received data showed that among the socio-hygienic factors, the most important risk factors for the development of mastopathy were: women's low social level, low physical activity, eating habits and quality disorders.

Most of the medical-biological and social-hygienic factors mentioned above can be practically controlled, so taking these factors into account, eliminating them, or at least alleviating their effects can be considered as an important reserve in the prevention of mastopathy in women.

4. Prediction of the development of mastopathy based on an integrated assessment of risk factors

In general, we analyzed 4 groups of risk factors (XO) of mastopathy: medical-biological factors (20 XO), medical-social factors (13 XO), some nutritional factors (15 XO) and factors describing living conditions (7 XO). The number of exposures to these XO children was studied in the main and control groups. This situation made it possible to calculate risk indicators and predict the probability of mastopathy taking into account these indicators. When sorting out important risk factors, we took into account only the magnitudes of the relative risk index (RHI) greater than 1.1 (Table 16).

Table 16

Relative indicators of medical-biological and social-hygienic risk factors

Factors	Gradation of factors	P_1 (%)	P_2 (%)	P_1 / P_2
A woman's age at childbirth	- Under 20 years old	46,2	48,5	0,95
	- Over 30 years old	4,73	2,50	1,89
Artificial termination of pregnancy (abortion)	no abortion	46,7	51,6	0,91
	1 time	17,2	21,1	0,82
	2-4 times	66,7	42,3	1,58
Duration of breastfeeding	Not breastfeeding	7,7	5,1	1,51
	up to 3 months	6,5	4,2	1,55
	Up to 2-3 years old	56,8	57,1	0,99
Inflammation in the genitals	there is	56,2	34,6	1,62
	No	43,8	65,4	0,67
Liver and gallbladder diseases	there is	54,4	32,7	1,66
	No	45,6	67,3	0,68
Thyroid diseases	there is	63,3	30,9	2,05
	No	36,7	69,1	0,53
The passage of his sex life	Regular	47,3	49,7	0,95
	Irregular	52,7	50,3	1,05
TVI indicators	Normative	46	47	0,98
	Too much	54	53	1,02
The social status of a woman	- worker	33,1	31,4	1,05
	- servant	25,4	19,5	1,30
	- housewife	26,6	37,8	0,70
Eating pattern	- complies	36,1	47,5	0,76
	- does not comply	63,9	52,5	1,22
Eating meat and meat products	- enough	43,2	48,1	0,90
	- not enough	56,8	51,9	1,09
Consumption of dairy	- enough	48,5	53,3	0,91

products	- not enough	51,5	46,7	1,10
Eating fish	- enough	29,4	28,9	1,02
	- not enough	70,6	71,1	0,99
Eating vegetables and fruits	- enough	64,5	60,8	1,06
	- not enough	35,5	29,2	1,22
Living conditions	private house	60,8	64,6	0,94
	an apartment in an apartment building	37,8	35,4	1,07
More than 1 living space per family member	More than 9 m2	47,3	50,8	0,93
	less than 9 m2	52,7	49,2	1,07
Walking in the open air	Less than 3 hours	86	81	1,06
	More than 3 hours	14	19	0,74

Calculations showed that 11 out of 20 medical-biological factors can be said to have a statistically significant increase in the risk of mastopathy: late onset of menarche (15-17 years old), late motherhood, artificial termination of pregnancy, non-breastfeeding or short term

(up to 3 months) breastfeeding, the presence of concomitant diseases (inflammatory diseases of the genitals, diseases of the liver, bile ducts and gall bladder, various diseases of the thyroid gland), irregular sexual life, abnormal size of the TVI, genetic predisposition and trauma to the chest. In this case, 6 XOs are important: the age of the mother at the time of childbirth increases the risk of mastopathy by 1.89 times, at the time of artificial termination of pregnancy (2-4 abortions) - by 1.58 times, not breastfeeding or breastfeeding for a short time - by 1.6 times, the presence of inflammation in the genitals - by 1.62 times, the presence of liver and gall bladder diseases - by 1.66 times, the presence of thyroid gland diseases - by 2.05 times increases the risk of developing mastopathy.

Among the socio-hygienic risk factors of mastopathy, the low social status of women is more important. In these conditions, the social status of the entire

family is reflected in the living conditions, and they may ignore the disease due to the low level of medical culture.

The importance of some nutritional factors in the formation of mastopathy attracts attention. 3 of these 15 factors were statistically significant: low consumption of cottage cheese and other dairy products (OR - 1.1), low consumption of vegetables and fruits (OR - 1.22), and non-compliance with the diet (OR - 1 ,22).

Statistical significance of 2 out of 7 factors describing the importance of living conditions in the development of mastopathy (living in an apartment in a multi-story building and living space per 1 member of the family is less than 9 m2) was determined. However, the presence of these factors increases the risk of mastopathy by only 1.07 times.

When analyzing the indicators of the main and control groups of women, the calculation of the risk indicators for the occurrence of mastopathy made it possible to determine the most important factors in the group of each of the studied medical-biological and social-hygienic factors. However, in real conditions, not each individual risk factor is important for the organism, but their combined comprehensive effect. In this regard, an integrated assessment of mastopathy risk factors was made, taking into account the comprehensive impact of medical-biological, socio-hygienic factors, nutritional factors and living conditions of the studied contingent of women.

While conducting socio-hygienic research, 48 gradations of factors were evaluated by us, but for the calculation of the prediction table, factors with significant differences in the main and control groups were selected. The total number of such groups was 17. This makes it possible to focus on the most important risk factors of mastopathy when using the table for practical purposes.

The calculation of true ratios for risk factors showed (table 4.12) that their magnitude was 0.53 - 2.05, and the most important factors were: artificial termination of pregnancy, not breastfeeding or breastfeeding for a short time,

concomitant diseases (genital the presence of inflammatory diseases, diseases of the liver, biliary tract and gall bladder, various diseases of the thyroid gland).

The magnitude of the minimum risk for the considered factors was 0.53, and for the maximum it was 40.55. Such a wide range of risk is due to the large number of factors taken into account, as well as the prevalence of true-to-life ratios. Risk factors in the specified range are listed in Table 17.

Table 17

Risk groups of mastopathy

Risk level	Risk ranges	Prophecy
Low	0,53 – 12,16	Acceptable
Medium	12,17- 24,33	Attention
High	24,34 – 40,55	Inappropriate

Conclusions:

1. The development of forecasting tables provides an opportunity to distinguish individuals who are affected by an inappropriate combination of medical-biological and socio-hygienic risk factors among practically healthy women. In this case, not only the risk of developing mastopathy is predicted, but it is also taken into account what factors have the most significant diagnostic coefficients.
2. Prediction of the development of mastopathy in women makes it possible to distinguish specific risk groups for more thorough dispensary control, as well as to isolate the main risk factors for drawing up plans for preventive and health measures. Based on the priority of the factors, a plan of preventive and remedial measures is drawn up.

5. Improvement of alimentary prevention of mastopathy

As the character of human nutrition is an integral part of life, it has a

significant impact on the course of all diseases, including mastopathy, rationalization of nutrition in mastopathy

determines the effectiveness of the therapy in 30-35% of cases [7; pp. 48-51].

Dietary factors are of great importance in the pathogenesis of mastopathy and breast cancer. The nature of eating and diet affects the metabolism of steroid hormones.

It has been found that a diet with a sufficient amount of fat and meat products leads to a decrease in the amount of androgens in the blood plasma and an increase in the amount of estrogens, in addition, the production of carcinogenic substances increases. It is important to have enough vitamins and fiber in the diet, as their anticarcinogenic properties have been proven [110; p. 3].

In recent years, the attention of many representatives of medical science and practice to nutritional problems has increased. This situation is related not only to the understanding of the negative health consequences of dietary composition and nutritional status disorders, which are found everywhere and are widespread among the population, but also to the achievements of biochemistry, cell biology, genomics, proteomics and other fundamental sciences. When there is a risk of development of a number of diseases, the role of individual micro- and macronutrients, non-nutritional minor biologically active parts of food has found its solution in managing the functional activity of organs and systems [112; pp. 5-14, 143; pp. 57-63].

At the same time, the role of macro- and micronutrients in the occurrence and development of many diseases has not been fully studied or not studied at all. Such diseases include mastopathy. There are almost no studies describing the peculiarities of nutrition in the development of mastopathy, as well as the treatment and prevention of the disease itself and its dangerous transformation based on the correction of women's nutrition.

We conducted research on the correction of the diet of women suffering from mastopathy, as well as the hygienic justification of alimentary prevention in

mastopathy based on the use of special products.

Research in this direction was carried out in several stages. In the first stage, the real food diet of women suffering from mastopathy was evaluated. The actual nutrition of women was evaluated according to questionnaires developed by the staff of the Department of Child, Adolescent Hygiene and Nutritional Hygiene of TTA. Researches were conducted twice a year - in winter-spring and summer-autumn seasons. The amount of products actually consumed by women for 10 days was recorded in personal sheets. Nutrient and energy content was estimated according to chemical tables of food composition.

The results of the study of women's real nutrition and provision of vitamins indicate the disproportion and inadequacy of the average daily rational standards of food consumption of the population of the Republic of Uzbekistan by sex, age, and professional groups (SanQ and M 0105-2001).

The set of products included in the daily ration of women's diet is relatively narrow, the diet is characterized by a single variety, and a shortage of dairy products, eggs, vegetable oil, vegetables and fruits is found. Among the consumed products, bread and bakery products, sugar and confectionery products, and animal fat have a greater relative share. The assessment of women's diet showed that the consumption of bread and bread products in excess amount compared to the recommended norms is 52% (Table 18).

Table 18

Main food products in the winter-spring and summer-autumn seasons of the year by mastopathy patients to be consumed

№	Name of products	Absolute gr Day	Physiological norm	Relative to the norm %
1	Meat and meat products (calculated against meat)	100 / 100	94	106 / 106

2	Milk and milk products (recalculated against milk)	188 140	340	55,3 41
3	Eggs (pieces)	0,5 0,5	0,8	62,5 62
4	Bread and bakery products (recalculated for bread)	500 500	385	152 152
5	Potatoes	175 125	155	112 80,6
6	Animal fat	55 45	30	183,6 150
7	Vegetable oil	21 19	25	84 76
8	Vegetables and pulse crops	75 125	255	68,6 49
9	Fruits and berries	175 225	190	92 118
10	Sugar and confectionery (calculated against sugar)	128 63	35	365 180

Note: here and in Table 5, the winter-spring and summer-autumn seasons of the year are shown in the figure and the denominator.

Excessive consumption of sugar and confectionery products in the winter-spring season was 80%, and 265% in the summer-autumn season. Excess consumption of animal fat in the winter-spring season was 83.6%, in the summer-autumn season - 50%. The need for potatoes is met by 112% in the winter-spring season and 80.6% in the summer-autumn season.

Deficiency of consumption of milk and dairy products, eggs, vegetable oil, vegetables and fruits was found. The shortage of consumption of milk and dairy products was 44.7% in the winter-spring season and 59% in the summer -autumn season. The shortage of vegetable oil consumption was 16% in the winter-spring season and 24% in the summer-autumn season. The deficit of vegetable consumption in the winter-spring season was 31.4%, and fruit consumption was 8%. The deficit of vegetable consumption in the summer-

autumn season was up to 51%. Fish and fish products are very rare in the diet of women.

Based on the obtained data, animal protein deficiency of the physiological norms of nutrients in the daily ration (the data was obtained by calculation) is 13-22%, vegetable oil deficiency - 12%, calcium deficiency - 37-40%, vitamin A deficiency - 25-50%, ascorbic acid it was found that the deficit was 17-32%. Carbohydrate consumption by women was found to be 53-56% higher (Table 19).

Thus, the results of the research showed that the diet of women suffering from mastopathy is characterized by a significant increase in energy value and lack of quality. These results do not contradict the information in the literature about the fact that the daily diet of modern women does not meet the hygienic requirements and that the women's body necessarily operates in the state of deficiency of calcium, vitamins and many other macro- and micronutrients. These cases show that it is necessary to correct the diet of women suffering from mastopathy. Correction of the diet should be aimed at normalizing the activity of the liver and intestines, eliminating metabolic and hormonal imbalance.

Table 19

The average daily amount of basic food products and energy in the diet of women with mastopathy in the summer-autumn and winter-spring seasons of the year

№	Nutrients	Absolutely	G Physiological norm	% of norm
1	Proteins, g	88,6±2,0 88,6±2,0	78	111,4 111,4
2	Including animal proteins	34±1,8 30,5±1,7	39	87 78,2
3	Fats, g	158±3,0 138±3,0	81	244 170

4	Шу жумладан, ўсимлик ёғлари	32,7±1,4 32,7±1,4	37	88,3 160
5	Carbohydrates, g	500±7,1 532±7,2	320	156 153
6	Calories (kcal)	3820±40 3740±40	2430	157 153
	Mineral substances			
7	Calcium, mg	543±7,3 483±7,5	800	67,8 60
8	Phosphorus, mg	1278±36 1188±35	1200	102,3 99
9	Iron, mg	29±0,7 29±0,7	18	161 161
	Vitamins			
10	A (retinol), mg	0,6±0,01 0,4±0,001	0,8	75 50
11	V1 (thiamine), mg	1,7±0,04 1,3±0,04	1,1	154 154
12	V2 (riboflavin), mg	1,3±0,04 1,3±0,04	1,3	100 100
13	RR (niacin), mg	19,8±1,3 15,8±1,2	14	141,4 112
14	C (ascorbic acid), mg	48±5,8 58,1±1,2	70	68,5 83
15	O:Yo:U ratio	1:1,6:5,8 1:1,6:6,6	1:1:4	
16	Sa:R ratio	1:2,3 1:2,4	1:1,5-2,0	

It is known that a diet containing a sufficient amount of fat and meat products

leads to a decrease in the amount of androgens in the blood plasma and an increase in the amount of estrogens, in addition, the production of carcinogenic substances increases. Based on the guidelines of the Committee on Diet, Nutrition, and Cancer Control of the US National Academy of Sciences, the following recommendations are offered: reduce consumption of saturated and unsaturated fats; include in the diet fruits, vegetables, cruciferous plant products, especially citrus fruits and vegetables rich in carotene, belonging to the cabbage family; consumption of canned, salted and smoked products should be reduced.

At the next stage of the research, sanitary promotion work was carried out in the form of a seminar on women's proper nutrition. During the seminars, booklets were distributed to participants with recommendations on diet correction (Appendix 2). The booklets contain information on recommended average daily intakes of food products, as well as recommended and non-recommended foods.

Table 20 shows the recommended average daily intake of staple foods and essential nutrients for women with mastopathy.

Table 20

Amount and chemical composition of recommended food products

№	Food products	Weight, g	Proteins, g	Fats, g	Carbohydrates, g	Calories kkal	Vitamins, mg					Mineral elements	
							A	B_1	B_2	PP	C	Ca	P
1	Wheat bread	200	14,2	3,2	92,8	458	-	0,3	0,24	6,05	-	58	228
2	Rye bread	200	13,0	2	80,6	380	-	0,38	0,2	2,9	-	74	256
2	Beef	70	8,0	5,5	-	90	0,006	0,05	0,09	2,3	-	5,7	110
3	Poultry meat	10	1,8	0,5	1,0	12,1	-	-	-	-	-	9	24
4	Sausage products	20	2,26	5,14	-	57	-	0,052	-	-	-	6,6	23,4
5	Vegetable oil	25	0,018	23	0,09	165	-	-	-	-	-	-	-
6	Cereal	25	1,8	0,15	15	55	-	0,02	0,01	0,4	-	3,5	24,2
7	Wheat flour	5	0,5	0,05	2,5	15	-	0,012	0,005	0,1	-	1,5	5
8	Pasta	20	1,8	0,16	14	67,2	-	-	0,008	0,22	-	6,8	19,4
9	Milk	300	8,4	11,6	21	172	0,06	0,08	0,26	0,3	3	360	270
10	Sour cream	20	2,4	0,65	2,8	24	0,16	0,016	0,004	0,08	0,08	16,8	12
11	Cottage cheese	20	14,0	0,48	0,28	16	-	-	0,04	0,2	0,2	10,4	44,8
12	butter	30	0,3	23,4	0,21	210	0,75	-	0,003	0,03	-	6,9	3
13	Vegetables	200	4,0	-	11,2	58	0,03	0,14	0,12	0,8	14	96	60
14	Potatoes	150	1,9	0,15	30	123	0,03	0,18	0,08	1,3	20	15	8,5

15	Fruits	200	0,8	-	22,6	92	0,02	0,04	0,05	0,2	10	38	30
16	Poly crops	50	0,35	-	3,0	19	0,25	0,15	0,03	0,35	5	14	13
17	Sugar	35	-	-	34	136	-	-	-	-	-	-	-
19	Eggs (pieces)	0,5	6,4	6,0	-	78	0,07	0,014	0,08	0,04	-	10,6	37
	Total		86	87	380	2547	0,9	1,2	1,23	13	72	755	1300

At the next stage of the research, the recipe and technology for making bran buns was developed in cooperation with the technologists of "Sagbon Non" LLC. Buns with bran are produced in a weight of 0.2 kg and comply with the current technical conditions of TSh 8-105. Physico-chemical indicators of bran buns: core moisture - no more than 43%, core acidity - no more than 4 degrees. In bran buns, it is not allowed to have foreign inclusions, crunching of mineral additives, signs of disease and mold. The amount of toxic elements, mycotoxins, pesticides, radionuclides, and microbiological indicators do not exceed the norms established by UzR SanQvaM 0283-10 "Hygienic requirements for the safety of food products" approved by SSV. The amount of main nutrients in bran buns per 100 g of product is as follows: proteins - 8.1 g; fats - 1.7 g; carbohydrates - 53.4 g. The energy value of 100 g of this product is 240 kcal. organized (Table 21).

Table 21

Indicators of key nutrients in plain and wholemeal bread

100 g product composition	Types of bread products	
	Plain bread	Wholemeal bread
Protein	7,6	8,1
Oils	0,9	1,7
Carbohydrates	49,7	53,4
Energy value	226	240

The amount of vitamin V1 in bran buns is 4.4% higher than the control samples, vitamin V2 – 14%, and vitamin RR – 16% more. Compared to the control samples, bran bread contains more potassium by 37%, calcium by 9.2%, magnesium by 47%, and phosphorus by 4.5%. These results, obtained using the calculation method, confirm that bran buns are superior to control samples in terms of their nutritional and biological value.

Currently, bran buns are produced based on the recipe of the "Brann Bun" technological instruction (TI 64-201950237-069:2011) approved by LLC "Sag'bon Non" (Appendix 3).

Studies on the nutritional and biological value of bran buns have noted the absence of undesirable indicators, which makes it possible to conduct studies with human participation. In the real diet of women, it was recommended to eat 200 g of special wholemeal buns every day for six months with the usual bread products (Table 22).

Table 22

Clinical approval of new food products

Tested group	Complex of events
Control group	Mastodinon drug
Main group	Mastodinon drug 200 gr of bran bread per day Health activities (correction of healthy lifestyle and diet)

At the next stage of the research, a comprehensive evaluation of the effectiveness of correction of the diet of women with mastopathy was carried out. The following measures were taken to correct the lifestyle and diet of women with mastopathy (Table 23):

methodological manuals (in Russian, Uzbek and English) on proper nutrition of women suffering from mastopathy were created;

what we need to know about mastopathy, booklets about the main rules of women's nutrition in mastopathy were prepared;

monthly seminar meetings were organized among women on lifestyle and diet correction (for 6 months);

booklets, recommendations and methodological manuals were distributed to each participating woman;

it was recommended to carry out normal physical activity and to walk in the fresh air for a sufficient time;

it was recommended to give up harmful habits;

treatment of concomitant diseases was recommended;

women were examined once a month.

Table 23

Adjust your lifestyle and diet performance indicators

Clinical symptoms of mastopathy	Number of repetitions of symptoms in the studied groups %	
	Main (N=50)	Control (N=50)
At the beginning of research		
Periodic pains during menstruation	82	80
Swelling in the chest	64	63
A feeling of heaviness in the chest	78	80
Roughness in the chest	80	82
After complex health measures		
Periodic pains during menstruation	62	78
Swelling in the chest	30	64
A feeling of heaviness in the chest	36	82
Roughness in the chest	60	82

Changes in the anthropometric parameters of obese women were observed, and it can be seen that the patient's body weight decreased by an average of 3 to 4.9 kilograms by the end of the experiment (Table 24).

Table 24

Овқатланишни коррекциялаш ва жисмоний фаолликнинг климакс давридаги аёлларга таъсирининг антропометрик кўрсаткичлари

Indicator	The beginning of 1 month	from 3 months after	P	from 6 months after	P
Body weight, kg	89,1± 1,06	86,9±1,03	>0,05	84,2±0,97	<0,001
TVI, kg/m2	32,1±0,44	31,3±0,4	>0,05	30,3±0,41	<0,001

		4			
Waist circumference, cm	98,0±1,20	95,4±0,64	>0,05	92,2±0,61	<0,001
Chest size, cm	113,8±0,79	109,0±0,86	<0,05	107±0,86	<0,001

Based on the obtained results, the following conclusions were drawn.

- adherence to a healthy lifestyle, proper nutrition and consumption of bran buns led to positive shifts in body mass, body mass index and general condition of women in the main group compared to women in the control group;
- in the planning and implementation of primary and secondary prevention of mastopathy in women, it is necessary to pay special attention to the prevention of inflammatory processes in the small pelvis, gynecological diseases, thyroid gland diseases, diseases of the digestive organs, and the formation of a healthy lifestyle, including proper nutrition skills.

The number of mammary gland diseases among women of childbearing age is increasing in the world today. WHO, the main health indicators in the European region report that various pathologies of this organ occur in 25% of women under the age of 30, and in 60% of women after the age of 40 (2014y). In the reproductive age, one of the safe diseases of the breast - mastopathy is observed more often, and in many cases this pathology is an intermediate stage in the development of a malignant tumor process. According to scientists, the rate of turning mastopathy into cancer is 0.18-31.2%, depending on its form [4]. Timely and adequate treatment of safe diseases of the mammary glands is not only considered a guarantee of women's health care, but it is one of the urgent problems facing the workers of the field.

In the world, a number of scientific researches are being carried out in order to achieve the high efficiency of the formulation of alimentary prevention of mammary gland disease through the use of specialized food products. In this regard, it is to justify the positive and negative factors of the development of breast pathology in women, to justify the position of the medical-biological and social-hygienic risk factors of the disease. The importance of the alimentary component in the development of mastopathy and the effectiveness of specialized products in the prevention and treatment of mastopathy, the correction of the diet of women with mastopathy and the development of a complex of health measures aimed at evaluating the effectiveness of the use of new therapeutic food products and the creation of hygienic standards are of particular importance.

Today, a number of activities are being carried out in our country to prevent and eliminate diseases related to healthy eating. In 2017-2021, the Action Strategy for five priority directions of the development of the Republic of Uzbekistan - the implementation of complex measures aimed at improving and strengthening the health of the population, reducing morbidity rates, preventing nutrition-related diseases and increasing life expectancy - are

defined. (Decree No. PF-4947 of the President of the Republic of Uzbekistan "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan"). In performing these tasks, the prevention and diagnosis of various diseases, raising the level of modern medical services to a new level, and providing high-quality food products require the use of modern technologies. through improvement and healthy nutrition, it allows to reduce the level of morbidity among the population and increase the level of longevity.

UzRQ-393 of the Republic of Uzbekistan dated August 26, 2015 "On sanitary and epidemiological safety of the population" and

Laws of UzRQ-483-I "On ensuring the quality and safety of food products", Decree of the President of the Republic of Uzbekistan dated February 7, 2017 "On the Strategy of Actions on the five priority directions of further development of the Republic of Uzbekistan", Decree No. PF-4947, of the Cabinet of Ministers This monograph serves to a certain extent in the implementation of the tasks defined in the Resolution No. 102 of April 25, 2015 "On measures implemented in the field of healthy nutrition of the population of the Republic of Uzbekistan" and other regulatory legal documents related to this activity.

In recent years, the attention of many representatives of medical science and practice to nutritional problems has increased. This situation is related not only to the understanding of the negative health consequences of dietary composition and nutritional status disorders, which are found everywhere and are widespread among the population, but also to the achievements of biochemistry, cell biology, genomics, proteomics and other fundamental sciences. When there is a risk of development of a number of diseases, the role of individual micro- and macronutrients, non-nutritional minor biologically active parts of food has found its solution in managing the functional activity of organs and systems [99; p. 34, 100].

At the same time, the role of macro- and micronutrients in the emergence and

development of many diseases has not been fully studied or not studied at all. Such diseases include mastopathy. There are almost no studies describing the peculiarities of nutrition in the development of mastopathy, as well as the treatment and prevention of the disease itself and its dangerous transformation based on the correction of women's nutrition.

Therefore, in the planning and implementation of primary and secondary prevention of mastopathy in women, it is necessary to pay special attention to the prevention of inflammatory processes in the small pelvis, gynecological diseases, thyroid gland diseases, diseases of the digestive organs, and the formation of healthy lifestyle skills.

The scientific significance of the results of the research is that the causes of mastopathy, influencing factors, chemical composition of food, related diseases affecting the origin of the disease are known, risk factors and measures to eliminate them are proposed. Correcting the diet of patients and justifying the introduction of wholemeal buns into the diet of female patients, and the fact that this diet has a positive effect on the general condition of patients, improves the mental and physical condition of female patients, increases the quality of life, shortens the period of outpatient treatment of patients, as well as reduces the percentage of invasive and medical interventions. consists of justification.

In the monograph, the risk of development of mastopathy, depending on the manifestation of socio-hygienic factors, gained theoretical importance. On the basis of the obtained results, proposals were made to improve the efficiency of treatment and the quality of life of patients suffering from mastopathy. The monograph will improve the quality of work of primary care physicians and oncology specialists, resulting in the reduction of breast cancer and mastopathy.

PRACTICAL RECOMMENDATIONS

Women suffering from mastopathy and prone to periodic breast examination by a mammologist increase the chance of not getting the disease (this

specialist deals with preventive examinations of the mammary glands). It is also necessary to perform a self-examination at least once a month. If a woman has an ongoing menstrual cycle, the breast should be examined approximately on day 5-10 of the cycle. If a woman's period has ended, it is necessary to carry out the examination on a fixed day of each month. When the symptoms of mastopathy are slightly suspected, it is necessary to immediately consult a specialist.

1. It is recommended to lead a healthy lifestyle among women: a reasonable schedule of work and rest, adequate physical load, 7-8 hours of full sleep, it is necessary to refrain from alcohol and smoking, which increase the risk of mammary gland pathology.
2. Adding iodine-preserving products or iodine drugs to the daily diet helps to reduce the risk of developing mastopathy. Excess salt in the daily diet causes water retention in the tissues and the risk of swelling of the glands. Therefore, as much as possible, it is necessary to temporarily limit salt intake during the period of exacerbation of disease symptoms and before the beginning of "dangerous days".
3. Protecting the breast from severe injuries, minor injuries and accidental blows (crushes, crushes, etc.), when planning primary and secondary preventive measures due to the fact that mastopathy increases in the spring and autumn seasons of the year, and the peak of appeals falls on April and October. it is necessary to take into account the seasonality of mastopathy.
4. Dietary fiber binds the female sex hormone estrogen in the intestine and reduces the risk of disease due to the elimination of this hormone from the body. Along with eating more fiber-rich foods like lettuce, broccoli, cauliflower, sardines, spinach, and beans, you should limit starchy foods like potatoes and refined flour. It is recommended to replace them with refined grains, rice, oats and legumes.
5. Limitation of coffee, black tea, cola and other drinks containing caffeine, consumption of herbal teas, decoctions of chamomile, linden, mint or

chamomile, ensure that fluids leave the body. Green tea is also a healthy drink and is a valuable source of antioxidants that the body needs in the prevention and treatment of breast tumors. Tea made from the herb with the addition of honey has a calming effect on the body of women if consumed in the afternoon.

6. In addition to eating food, the use of enterosorbents (for the first 10 days of treatment) and drugs that maintain the normal microflora of the intestine is of great importance.
7. The results of technological and clinical studies. The bran bread buns are manufactured based on the recipe of the "Brann Bun" technological instruction 64-201950237-069:2011 approved by LLC "Sag'bon Non" and today it is recommended for the activity of all bread and bread production enterprises of our country.
8. During the studies on the nutritional and biological value of bran buns, the absence of undesirable indicators was noted, which makes it possible to conduct research with human participation. In the Women's Real Diet, it was recommended to eat 200g of special wholemeal buns per day for six months with regular bread products.
9. From a medical and preventive point of view, the results of the research are recommended for use by doctors of the Department of Nutritional Hygiene of DSENM, internal medicine doctors, mammologists, oncologists, gynecologists and food technologists.
10. Methodical manuals and textbooks created on the basis of the obtained results allow to be used in the ITI planning of all related research institutions and in the preparation of bachelor and master students in medical universities.

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ИЛОВАЛАР

1-Илова

Мастопатияга чалинган аёлларга тавсия этиладиган озиқ-овқат маҳсулотларининг ўртача кунлик миқдори

№	Озиқ-овқат маҳсулотларининг номи	Маҳсулотларнинг миқдори, гр
1	Буғдой нони	200
2	Жавдари нон	200
3	Қорамол гўшти	70
4	Парранда гўшти	10
5	Колбаса маҳсулотлари	20
6	Балиқ	30
7	Ўсимлик ёғи	25
8	Ёрма	25
9	Буғдой уни	5
10	Макаронлар	20
11	Қаймоғи олинмаган сут	300
12	Сметана	20
13	Творог	20
14	Сариёғ	30
15	Сабзавотлар	200
16	Картошка	150
17	Мевалар	200
18	Полиз экинлари	50
19	Шакар	35
20	Тухум (дона)	0,8

2 - илова

Тавсия этилувчи ва тавсия этилмайдиган маҳсулотлар:

1. Нон ва нон маҳсулотлари. Тавсия этилади: буғдой кепагидан тайёрланган нон, бир кун аввал ёпилган ёки қуритилган жавдари нон. ***Мустасно қилинади***: янги нон ва қовурилган нон, оширма хамирдан тайёрланган маҳсулотлар, кремли тортлар.
2. Гўшт ва парранда. Тавсия этилади: гўштнинг ёғсиз турлари (қорамол, қуён, товуқ, курка): қайнатилган, дастлаб қайнатиб, сингдириб пиширилган, кесилган ёки тўғралган, ёғсиз ветчина, қайнатилган ва парҳез колбасалар. ***Мустасно қилинади***: ёғли сортлар, ғоз, ўрдак, овланадиган ёввойи қушлар, мия, буйрак, консервалар, дудламалар, қовурилган таомлар.
3. Балиқ. Тавсия этилади: ёғсиз турлари, бўлакларга бўлинган, қайнатилган, дастлаб қайнатилиб, сингиб пиширилган, сабзавот қайнатиб димланган балиқ, қиймаланган. ***Мустасно қилинади***: ёғли турлари, дудланган, тузланган, консервалар, донадор икра (осётр, кета, севрюга).
4. Тухум. Тавсия этилади: қизартириб пиширилган оқсилли омлет, аммо, таомларда тухум сариғи кунига 1 тадан кўп бўлмаслиги керак. ***Мустасно қилинади***: қаттиқ қилиб пиширилган, қовурилган тухум.
5. Сут маҳсулотлари. Тавсия этилади: сут, кефир, чучук қатиқ, таомларни хушхўр қилиш учун сметана, нордон бўлмаган творог ва ундан тайёрланган таомлар (пудинг, тоблама, тез пиширилган чучвара), аччиқ бўлмаган пишлоқ. ***Мустасно қилинади***: қаймоқ, юқори кислоталикка эга бўлган творог.
6. Ёғлар. Тавсия этилади: табиий кўринишга эга бўлган сариёғ ва ўсимлик ёғи: кунгабоқар, зайтун, маккажўхори. ***Мустасно қилинади***: эритилган ёғ, ортиқча қовурилган ёғлар, чўчқа, қорамол, қўй ёғлари, маргарин, пазандалик ёғлари.
7. Ёрмалар, макарон маҳсулотлари ва дуккаклилар. Тавсия этилади:

бўтқа кўринишидаги тўлиқ ассортиментдаги ёрмалар (айниқса сули ва гречиха), творог, сабзи, қуритилган мевалар қўшилиб, қизартириб пиширилган пудинглар, сабзавот ёки мевали палов, дуккаклилар. ***Мустасно қилинади***: вермишел ва угра.

8. Сабзавотлар. Тавсия этилади: хом, қайнатилган ва қизартириб пиширилган кўринишидаги пишлоқ қўшилган сабзавотлар, қайнатилгандан кейинги пиёз, нордон бўлмаган тузланган (ачитилган) карам, саримсоқ. ***Мустасно қилинади***: маринадланган сабзавотлар.
9. Шўрвалар. Тавсия этилади: сутли, сабзавот қайнали ёрмалар билан, мевали, борщ ва вегетарианча таом. Таомларни хушхўр қилиш учун мевалар қовурилмайди. ***Мустасно қилинади***: гўштли ва балиқли бульон, қўзиқоринли қайнатма, окрошка.
10. Мевалар, ширин таомлар ва ширинликлар. Тавсия этилади: нордон бўлмаган мева ва резавор мева навлари, улардан тайёрланган шарбат, кисел, желе, кўпиртирмалар, музлатилган соққачалар, асал, мураббо. ***Мустасно қилинади***: шоколад, музқаймоқ, кремли маҳсулотлар, шакар.
11. Зираворлар ва таъм берувчилар. Тавсия этилади: петрушка, укроп (шивит), корица (долчин), ванилин. ***Мустасно қилинади***: гўшт ва балиқли шўрва, қўзиқоринли қайнатмадаги ўткир зираворлар, қалампир.
12. Ичимликлар. Тавсия этилади: лимонли чой, сабзавот, мевали ва резавор мевали шарбатлар, наматак қайнатмаси. ***Мустасно қилинади***: қаҳва, какао, совуқ ва газли ичимликлар.
13. Истеъмол қилинадиган суюқликларнинг миқдори суткасига 1,5-2 литрдан кам бўлмаслиги керак.