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**BUG'DOY KEPAGINI AYRIM KASSALIKLARNI DAVOLASHDA QO'LLASH USULLARI****МЕТОДЫ ИСПОЛЬЗОВАНИЯ ПШЕНИЧНЫХ ОТРУБЕЙ ПРИ ЛЕЧЕНИИ НЕКОТОРЫХ ЗАБОЛЕВАНИЙ****METHODS OF USING WHEAT BRAN IN THE TREATMENT OF CERTAIN DISEASES****Asqarov Ibrohimjon Rahmonovich<sup>1</sup>** <sup>1</sup>Andijon davlat universiteti, kimyo fanlari doktori, professor**Xamdamova Madinabonu Dilmurod qizi<sup>2</sup>** <sup>2</sup>Andijon davlat universiteti, tayanch doktorant**Annotatsiya**

Maqolada inson tanasida kechadigan fiziologik jarayonlarning buzilishi tanamizning turli darajalarda kasallanishiga sabab bo'lishi va turli kepek namunalariidan oqilona foydalanish tufayli shifo usullarini tahlil qildik. Yallig'lanish o'tkir va surunkali turlarga bo'linadi. O'tkir yallig'lanish organizm infeksiya yoki travmalar bilan kurashish uchun immun javob qaytarganda paydo bo'ladi. O'tkir yallig'lanish mahalliy hisoblanib, immun tizimining sog'lom ekanini bildiradi. Surunkali yallig'lanish uzoq muddat davomida ifodalangan yallig'lanishdir. Eng dolzarb deb hisoblangan yallig'lanish kasalliklari immun tizimi faoliyati bilan bevosita bog'liq. Xalq tabobati va tibbiyotda kepekning turli yormalaridan tashqari, uning qatiq yoki sutli, asal, lavlagi va o'rik kabi mevalar bilan tayyorlangan vositalari qandli diabet, qabziyat (ich qotishi), ortiqcha vaznlilik, jigar va o't qoni kasalliklari va buyrak kasalliklarni davolashda qo'llanilishi ma'lumdir. Ichki yallig'lanish kasalligi hisoblangan Kron kassaligi, ateroskleroz va immun tizimining zaiflashishi kabi turlariga donli o'simliklarning chiqindisi hisoblangan kepekdan antioksidant faolligi va tarkibidagi biologik faol moddalarining ta'siri tufayli turli qo'llash va davo usullarini taklif qilmoqchimiz.

**Аннотация**

В статье мы проанализировали методы оздоровления в связи с тем, что нарушение физиологических процессов в организме человека приводит к заболеванию нашего организма на разных уровнях и рациональному использованию разных образцов отрубей. Воспаление разделяют на острый и хронический типы. Острое воспаление возникает, когда в организме возникает иммунный ответ на борьбу с инфекцией или травмой. Острое воспаление локализовано и указывает на здоровую иммунную систему. Хроническое воспаление – воспаление, выраженное в течение длительного периода времени. Воспалительные заболевания, считающиеся наиболее распространенными, напрямую связаны с деятельностью иммунной системы. В народной медицине и медицине, помимо различных круп из отрубей, ее продукты, приготовленные на простокваше или молоке, меде, свекле и абрикосах, используются при лечении сахарного диабета, запоров (запор), избыточного веса, заболеваний печени и желчевыводящих путей, болезней почек. ., как известно, используется. Мы хотели бы предложить различные методы применения и лечения таких видов внутренних воспалительных заболеваний, как болезнь Крона, атеросклероз и ослабление иммунной системы за счет антиоксидантной активности отрубей, являющихся отходами злаковых растений, и действия их биологических свойств. активные вещества.

**Abstract**

In the article, we analyzed the methods of healing due to the fact that the violation of physiological processes in the human body causes our body to get sick at different levels and the rational use of different bran samples. Inflammation is divided into acute and chronic types. Acute inflammation occurs when the body mounts an immune response to fight infection or trauma. Acute inflammation is considered local and indicates a healthy immune system. Chronic inflammation is inflammation that occurs over a long period of time. Inflammatory diseases, which are considered the most urgent, are directly related to the activity of the immune system. In folk medicine and medicine, in addition to various cereals of bran, it is known that its remedies prepared with yogurt or milk, honey, beets and apricots are used in the treatment of diabetes, constipation (constipation), overweight, liver and biliary diseases, and kidney diseases. We would like to offer different application and treatment methods for internal inflammatory diseases such as Crohn's disease, atherosclerosis and weakening of the immune system due to the antioxidant activity and biologically active substances contained in bran, which is a waste of cereal plants.

**Kalit so'zlar.** Ichki kassaliklar, bug'doy kepagi, Kron kasalligi, ateroskleroz, immunitet, dieta usullari, antioksidant faollik, biologik faol qo'shimchalar.

**Ключевые слова.** Внутренние болезни, пшеничные отруби, болезнь Крона, атеросклероз, иммунитет, методы диеты, антиоксидантная активность, биологически активные добавки.

**Key words.** Internal diseases, wheat bran, Crohn's disease, atherosclerosis, immunity, diet methods, antioxidant activity, dietary supplements.

## INTRODUCTION

Flour and grain products make up the bulk of our daily diet. The amount of bran, considered a waste product from any grain mill, is about one-fifth of the total amount of grain. With reasonable consumption of bran, our diet can become a sufficient source of protein, carbohydrates (fiber), essential macro- and microelements and a group of vitamins.

Bran is a waste or secondary product of wheat processing. On average, 28-30% of wheat is bran. Bran is rich in phosphorus, manganese, potassium, trace elements and B vitamins, but is low in sodium, calcium and chlorine.

In folk medicine and medicine, in addition to watery porridges made from bran, products prepared with curdled milk or milk, honey, beets and apricots are used in the treatment of diabetes, atherosclerosis, constipation, excess weight and kidney diseases. It is not recommended to use bran for diarrhea, vitamin deficiency, inflammation of the mucous membrane of the stomach and duodenum, during pregnancy and lactation. [1,2]

Inflammation is divided into acute and chronic types. Acute inflammation occurs when the body mounts an immune response to fight an infection or injury. Acute inflammation is localized and indicates a healthy immune system. Chronic inflammation is inflammation that occurs over a long period of time. It can be caused by autoimmune diseases such as rheumatoid arthritis, multiple sclerosis and physical stress. Common symptoms of chronic inflammation include joint pain, digestive problems and fatigue. Regular exercise, an anti-inflammatory heart-healthy diet, and adequate sleep are recommended ways to reduce chronic inflammation. [3]

## LITERATURE REVIEW

Bran contains Omega-3 (breaks down triglycerides in the human body) and Omega-6 (regulates cholesterol levels, activates nail, hair and growth) from unsaturated fatty acids that are not produced by the human body. They normalize heart function, activate brain function and prevent atherosclerosis, promotes contraction and cleansing of blood vessels and intestines.

Wheat bran promotes a feeling of fullness by increasing the number of bran cells in the stomach. This feature is especially important for those who want to lose weight. In addition, it helps remove everything unnecessary from the intestines — toxins, mucus, and reduces the likelihood of developing constipation and colon cancer. It is for this reason that many nutritionists recommend wheat bran for constipation.

Wheat bran is not a food in itself, but there are several ways to include it in your diet. Wheat bran contains various minerals that help perform various functions in the human body. Bran contains concentrated zinc, manganese, phosphorus and magnesium. Zinc helps strengthen the immune system and fight viruses such as colds. Magnesium also helps strengthen your immune system and also helps keep your heart and bones healthy. With the help of phosphorus and calcium, it will be possible to help tissue repair and growth. Manganese plays an important role in maintaining healthy bones and the immune system.

One of the best benefits of wheat bran is that it contains many important vitamins. Some of them are B vitamins such as folate, thiamine and V6. B vitamins help the body convert carbohydrates and fats into energy for the body.

Wheat bran is rich in vitamin E. This vitamin is an antioxidant that helps protect fatty substances in the body. Some examples of these substances are brain cells, cell membranes, and cholesterol. Vitamin E protects them from damage caused by free radicals in the body. This damage can lead to serious illnesses such as cancer and heart disease. Wheat bran contains phytosterols, which reduce the absorption of cholesterol. Because they have a shape similar to cholesterol, they can block receptors in the intestines that prevent the absorption of bad cholesterol. This helps reduce the risk of cardiovascular disease and heart attack.

In folk medicine, about 20 kidney diseases are known, among which the most common type is kidney cold. In the past, our great doctors paid special attention to this disease using traditional medicine methods.

## KIMYO

Abu Bakr Ar-Razi (865-926) recommended bathing in hot water and drinking barley broth to treat kidney colds; Abu Ali ibn Sina also recommended bathing in a hot cup and applying various medicinal ointments to the kidneys while lying down. [5]

**RESEARCH METHODOLOGY**

We would like to offer methods of treating the above diseases, mainly of an inflammatory nature, using dietary bran products.

In folk medicine and medicine, in addition to various bran grains, it is known to be used in the treatment of diabetes, constipation (constipation), excess weight, liver and biliary tract diseases, and kidney diseases.

**ANALYSIS AND RESULTS**

Wheat bran contains 64.5 g of carbohydrates per 100 g of product, which is about 72% of the total serving energy or 258 kcal. Calorie content – 216 kcal.

Composition of wheat bran:

Fats – 4.25 g,

Proteins – 15.55 g,

Carbohydrates – 64.51 g,

Water – 9.89 g,

Ash – 5.79 g.

Calorie content of wheat bran: 180 kcal

Proteins: 14.7 g

Fats: 4.1 g

Carbohydrates: 20.6 g

Bran is a by-product of flour milling, which is the husk of wheat grains. It is the shell that contains almost all biologically valuable substances (more than 90%). Thus, wheat bran contains a large amount of fiber, vitamins (A, E, B<sub>1</sub>, B<sub>2</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub>), various macro- and microelements (for example, zinc, sulfur, manganese, copper, phosphorus, iodine, magnesium, calcium). [4]

The chemical composition of bran listed above makes it possible to use them in the treatment of a number of diseases.

Crohn's disease is a prime example of internal inflammation. Crohn's disease is a chronic relapsing intestinal disease from the group of inflammatory bowel diseases (IBD). Crohn's disease, which can occur anywhere in the digestive tract, causes inflammation and ulcers in the intestinal wall. This disease, which is common among young people, can seriously affect quality of life and cause complications. In this article, we will take a closer look at what Crohn's disease is, its symptoms, and how to treat dandruff.

Symptoms of Crohn's disease can vary depending on the area affected and the severity of the disease. However, the most common symptoms are: abdominal pain, diarrhea, weight loss, fever, fatigue and weakness, and problems in the anal area. Medicines used to control Crohn's disease include anti-inflammatories, immunosuppressants and antibiotics, steroids, special diets, and surgery.

*Immunity* translated from Latin means "freedom" and is the ability to protect the body from foreign substances, cells, including bacteria and viruses. There are several factors that lead to decreased immunity. The main ones are poor nutrition, chronic stress, chronic lack of sleep, bad habits and toxic environmental influences. Antibodies in the blood consist of immunoglobulin proteins, which form the basis of the immune system, and they are replenished mainly with the help of natural foods or synthetic drugs. [5]

*Atherosclerosis* is the thickening and hardening of artery walls due to the accumulation of cholesterol, fat and other substances. Atherosclerosis is a process that usually develops over years and can lead to various health problems. Normally, arteries are flexible and smooth, allowing blood to flow freely. However, factors such as poor diet, lack of physical activity, smoking, high blood pressure, diabetes and obesity can cause plaque to form in the arteries. These substances stick to the walls of the arteries and harden over time, narrowing the internal diameter of the vessels and restricting blood flow. Atherosclerosis is often part of the aging process, but additional factors such as high blood pressure, high cholesterol, obesity, smoking and diabetes increase the likelihood of developing this disease. [5]

Rich in enzymes, fiber, macro- and microelements, part of the wheat, vitamin E, B vitamins, selenium and zinc, especially wheat husks, when consumed in moderation, relieves constipation and improves the functioning of the gastrointestinal tract. [6]

Bran is often prescribed for stagnation of bile, bad stool and constipation. In the intestines, bran binds bile acids, thereby reducing the amount of cholesterol in the blood. This is a good prevention of atherosclerosis. [7]

The introduction of bran products into the diet is carried out in stages. Bran can be consumed up to 50-60 g per day. At the same time, the amount of bran and any porridge prepared from it is gradually increased.

When treating Crohn's disease, cure can be achieved by adding bran decoction to the daily diet. To do this, take 100 g of bran, brew it with twice as much water over low heat and drink 40-50 ml of the prepared mixture on an empty stomach. In this case, a decoction rich in vitamins is ready, harmless to the intestinal walls.

The first factor in the treatment of atherosclerosis is a healthy diet, in which the consumption of bran products gives effective results. The bran mass is mixed with an equal amount of water and boiled until a thick mass is formed. Consuming 3-4 tablespoons of the resulting jelly-like mass per day effectively eliminates plaques that form in the blood vessels.[8]

It is recommended to consume a drink that is healthy and rich in minerals that are good for the immune system. To do this, take 3 grams of bran, boil it in 300 grams of water for half an hour and pour it in. Consuming this mass 3-4 times a day warm will help with general weakness observed in older people, joint pain and strengthening the immune system. [9]

### CONCLUSION

In addition to methods of internal use, bran has also been proven to promote the healing of rashes and wounds on the skin. For this, a thick mass boiled in an equal amount of water for half an hour and applied to spots and wounds in a warm state will give a positive result.

Despite the medicinal properties of bran noted above, there are currently no medicinal food supplements prepared on the basis of various bran samples. By analyzing biologically active substances (the amount of flavonoids and antioxidant activity) in bran samples selected on the basis of wheat varieties grown in Andijan during our research, we would like to propose the preparation and sale of medicinal food additives based on bran.

### BIBLIOGRAPHY

1. И.П. Асқаров. Табобат Қомуси, Тошкент Мумтоз сўз 2019й. 149-151 б.
2. И.П. Асқаров. Сирли табобат. ЎЗБЕКИСТОН ТИББИЙ ФАОЛИЯТ БИЛАН ШУФУЛЛАНУВЧИЛАР ТАБООБАТ АКАДЕМИЯСИ. Тошкент-2021й. 410 б.
3. Elektron manbaa <https://uzpharmagency.uz/uz/news/yalliglanishga-qarshi-dorilar-haqida-bilishimiz-kerak-bolgan-malumatlar>
4. Feruza Suvonkulovna Umurkulova, Charos Fazliddin qizi Rahmonova. BUG'DOY KEPAGI TARKIBIDAGI VITAMINLAR, OQSILLAR, LIPIDLAR VA UGLEVOGLARNING OZIQ-OVQAT MAHSULOTLARI TARKIBIDAGI AHAMIYATI. Volume 4 | SamTSAU Conference | 2023 Theoretical and practical foundations of introducing smart agriculture in Uzbekistan O'zbekistonda aqlli qishloq xo'jaligini joriy etishning nazariy va amaliy asoslari. 841-852b
5. Hans Carl Hasselbalch, Mads Emil Bjørn. MPNs as Inflammatory Diseases: The Evidence, Consequences, and Perspectives. Mediators of Inflammation in Myeloproliferative Neoplasms: State of the Art. <https://www.hindawi.com/journals/mi/2015/102476/>
6. N.Zmora, M.Levy, M.Pevsner-Fischer, E.Elinav. Inflammasomes and intestinal inflammation Mucosal Immunology Volume 10, Issue 4, July 2017, Pages 865-883 <https://www.sciencedirect.com/science/article/pii/S1933021922006973>
7. Elektron manbaa. <https://daryo.uz/k/2023/10/04/immunitet-nima-sababdan-pasayadi-va-uni-qanday-qilib-kotirish-mumkin>
8. Кепак: фойда ва зарар, фойдаланиш бўйича маслаҳатлар. Буғдой кепаци — фойда ва зарар, қандай қабул қилиш керак? Кепакнинг танага таъсири. Ёрмалар 01.09.2023. <https://hayam-cafe.ru/uz/cereals/otrubi-polza-i-vred-sovety-po-primeneniyu-otrubi-pshenichnye-polza-i-vred/>
9. Erling Falk. Pathogenesis of Atherosclerosis Pathogenesis of Atherosclerosis <https://www.jacc.org/doi/abs/10.1016/j.jacc.2005.09.068>