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THE IMPORTANCE OF DIET IN STOMACH DISEASES

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Annotatsiya. Ushbu tezisda oshqozonning anatomik tuzilishi, shilliq qavati, mushak qatlamlari va parhezning ovqat hazm qilish tizimiga anatomik-fiziologik ta'siri yoritiladi.
Kalit so'zlar: oshqozon, anatomiya, parhez, shilliq qavat, mushak qavati, kardial qism, fundal qism, pilorik qism, hazm qilish.
Abstract. This thesis examines stomach anatomy, mucosal structure, muscular layers, and the anatomical and physiological effects of dietary management on digestive health.
Keywords: stomach, anatomy, diet, mucosa, muscular layer, cardia, fundus, pylorus, digestion.

The stomach is a vital organ of the digestive system, situated between the esophagus and the duodenum. Its primary functions include the temporary storage of food, its mechanical breakdown, mixing it with gastric juice, and the gradual passage of the resulting mass into the intestine. The anatomical structure of the stomach is closely linked to its functional activity. Therefore, to understand the importance of diet in the context of gastric diseases, it is essential to first examine the anatomy of this organ and how it interacts with food.

Dietary management helps regulate the mechanical, chemical, and thermal stimuli that affect the stomach's mucous membrane (mucosa). However, its effectiveness depends on the specific type of disease, the condition of the mucosa, and the motility (functional movement) of the stomach. Consequently, the dietary regimen must be tailored to the clinical status of each individual patient.

The stomach is located in the upper part of the abdominal cavity, primarily within the epigastric and left hypochondriac (subcostal) regions. Its shape and volume vary depending on the amount of food consumed, body position, and individual anatomical characteristics. Anatomically, the stomach is divided into the following parts:

Cardiac part (cardia) — the region where the esophagus connects to the stomach.

Fundus — the dome-shaped portion located above the cardiac part.

Body (corpus) — the main and largest part of the organ.

Pyloric part (pars pylorica) — the region of the stomach that transitions into the duodenum.

Pyloric sphincter — a ring-shaped muscular structure that controls the passage of contents from the stomach into the intestine[2].

Each of these parts performs a specific function during the digestive process. For instance, the mechanical mixing of food and its combination with gastric juice occur in the body of the stomach. The pyloric sphincter, meanwhile, regulates the movement of gastric contents into the intestine. Therefore, when planning a diet, it is important to consider not only the consistency, volume, and composition of the food but also the motor activity of the stomach.

The stomach wall consists of four primary layers: the mucosa, the submucosa, the muscular layer, and the serosa.

The mucosa (tunica mucosa) lines the inner surface of the stomach. It contains gastric pits and glands. The cells within the glands participate in the production of hydrochloric acid, enzymes, mucus, and other substances. A protective system consisting of mucus and bicarbonate helps safeguard the stomach wall from the harmful effects of the acidic environment[1].

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In the context of gastric diseases, the condition of the mucous membrane is of particular importance. For instance, in cases of gastritis, an inflammatory process may be observed in the mucous membrane. In such situations, it may be recommended to consume foods that are not excessively hot and do not irritate the mucous membrane, selected based on individual tolerance. However, a single, rigid diet is not required for all patients with gastritis.

The submucosa (*tela submucosa*) consists of connective tissue rich in blood vessels, lymphatic vessels, and neural structures. It facilitates the nourishment of the mucous membrane and ensures its connection to the underlying structures.

Adequate and balanced nutrition supports the body's recovery processes; however, diet alone cannot independently cure pathological changes in the submucosal layer.

The muscular layer (*tunica muscularis*) typically consists of an inner oblique layer, a middle circular layer, and an outer longitudinal layer. The coordinated contraction of these layers serves to break down food, mix it, and propel it into the intestine. Consuming food in moderate amounts can help prevent the stomach from becoming overly full. Conversely, very large portions may exacerbate feelings of heaviness, bloating, and discomfort in some patients.

The serous layer (*tunica serosa*) covers the outer surface of the stomach and plays a role in its interaction with other structures within the abdominal cavity. This layer acts as an external covering that allows the stomach to move freely[4].

In the context of gastric diseases, the primary goal of a diet is to facilitate the digestive process, alleviate symptoms, and ensure the body receives essential nutrients.

First, the mechanical properties of food are of significant importance. Consuming food that is well-chewed and has a consistency comfortable for the patient facilitates its processing in the stomach. However, it is not appropriate to recommend only liquid or mashed foods for all patients; such restrictions are determined based on the specific type of illness and the symptoms present.

Secondly, the chemical composition of the food must be taken into account. For some individuals, spicy foods, alcoholic beverages, caffeine, or high-fat products can exacerbate discomfort. It is advisable to limit such items based on individual observation.

Thirdly, the temperature of the food is also significant. Very hot food can damage the mucous membranes of the oral cavity and the upper digestive tract; therefore, it is recommended to consume food at a moderate temperature.

Fourthly, eating patterns and portion sizes influence the processes of gastric distension and relaxation. For some patients, eating smaller, appropriately sized portions can reduce post-meal discomfort. Furthermore, patients who experience reflux are advised not to lie down immediately after eating. It should be noted that a dietary regimen cannot replace the medications and medical treatments necessary for addressing conditions such as gastric ulcers, *Helicobacter pylori* infections, or other diseases. Rather, dietary management serves as a supplement to primary treatment measures[3].

The importance of diet in the context of gastric disorders is directly linked to the organ's anatomical structure and functional characteristics. The protective mechanisms of the mucous membrane, the contractions of the muscular layers, and the function of the pyloric sphincter all play a vital role in the digestive process. A well-structured dietary approach helps to alleviate certain symptoms, limit excessive strain on the stomach, and maintain the patient's nutritional status. However, any dietary regimen must be tailored to the specific type of condition and the individual needs of the patient. Consequently, a balanced, scientifically sound dietary approach—grounded in an understanding of anatomy—is of great importance in the treatment of gastric diseases.

References

1. Ahmedov A.G‘. Odam anatomiyasi: tibbiyot institutlarining bakalavriat yo‘nalishi talabalari uchun darslik. — Toshkent: IQTISOD-MOLIYA, 2017. — 444 b.
2. Bahodirov F.N. Odam anatomiyasi. — Toshkent: Platinum Publishers, 2016. — 354 b.

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3. Sagatov T.A., Mirsharapov O‘.M. Odam anatomiyasi. — Toshkent: Tafakkur bo‘stoni, 2021. — 392 b.
4. Qodirov E. Odam anatomiyasi. — Toshkent: Universitet, 2017. — 276 b.