

## **Morphological Characteristics and Frequency of Duodenal Ulcer in Patients with Metabolic Syndrome in Khorazm Region**

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**Annotation:** in this article, in the course of scientific work carried out by the researcher and the scientific supervisor, the epidemiology of duodenal ulcer disease in patients with metabolic syndrome in Khorezm region, frequency of occurrence, location of the ulcer, complications with bleeding, statistical analysis, occurrence in relation to gender, district and detection of the disease in the urban area was studied.

Archival documents, macro-preparations, and histo-preparations of the last three years were used in the scientific work of the adult department of the Bureau of Pathological Anatomy of Khorezm region.

**Relevance of the topic:** It was found out that metabolic syndrome, i.e., body weight increase, visceral obesity, occurrence of carbohydrate and fat metabolism in the body, has increased by 21% in the last 10 years. In the USA, this indicator has increased by 34% in the last 5 years, while in European countries it has increased by 20.8%. Metabolic syndrome is observed on average in 56% of people over 40 years old, 44% mainly in people over 50 years old. This, from an economic point of view, leads to premature illness of the working-age population and a high demand for the health department of each country.

In the Russian Federation and the countries of Central Asia, this indicator is 16.8% on average, 51% are over 50 years old, 36% are over 40 years old, 11% are 20-30 years old, and others are 9%. This confirms the relevance of the problem and at the same time makes it necessary to study the morphological changes of the activity of the gastrointestinal tract in patients with this disease. It plays an important role in improving the quality of life of the population. In particular, in our country, metabolic syndrome mainly affects more than 4.2 million women, 38% of whom are of reproductive age. This is very important for the protection of the mother and child, which makes the topic relevant at the moment.

On average, in 2022, 22% of the total funds were allocated for the restoration of reproductive health of women with metabolic syndrome in Uzbekistan, while in 2023, this figure will be 36% and is increasing year by year. In this study, we present information about the occurrence of interrelated clinical morphological changes in metabolic syndrome, such as the enlargement of the duodenum, its size, and the occurrence of gallstone disease.

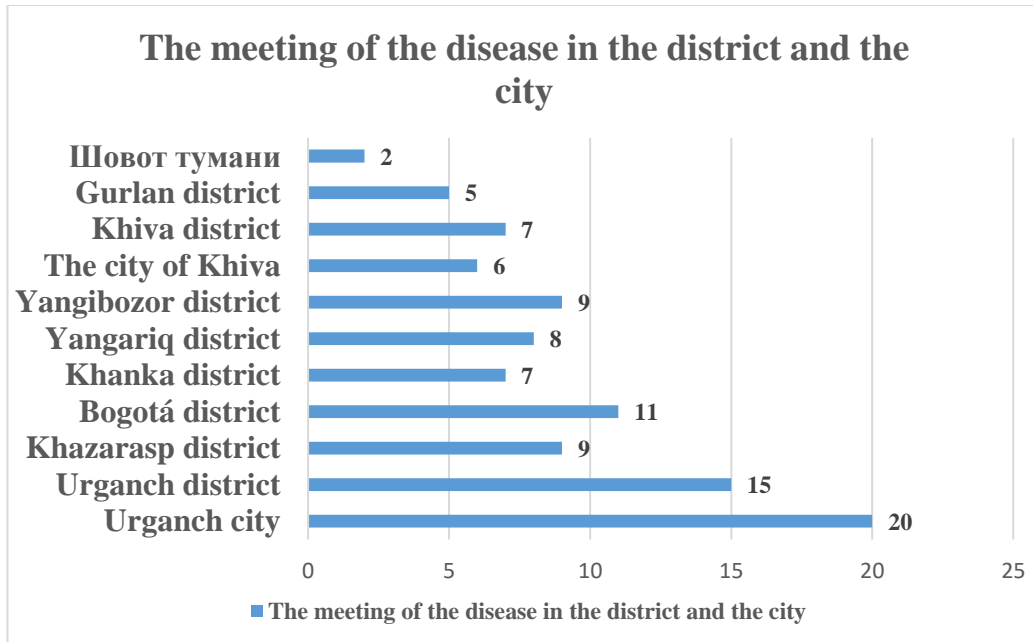
However, in the literature and scientific research of foreign and CIS countries, there is no information on morphological and immunohistochemical changes of the duodenum in metabolic syndrome, and this, in turn, allows for the development of specific recommendations for medical practice.

**The purpose of the work:** as the purpose of the work, the anamnestic analysis, statistical analysis, epidemiology of patients with metabolic syndrome in the Bureau of Pathological Anatomy of the Khorezm region, the frequency of occurrence, the location of the wound, complications with

bleeding, the occurrence in relation to gender, pathological in the 12 duodenum in the district and city The goal is to determine the changes.

**The results obtained:** within the framework of the conducted scientific research, 12 cases of finger ulcers with metabolic syndrome were identified in the district and city sections of patients with metabolic syndrome. Table 1.

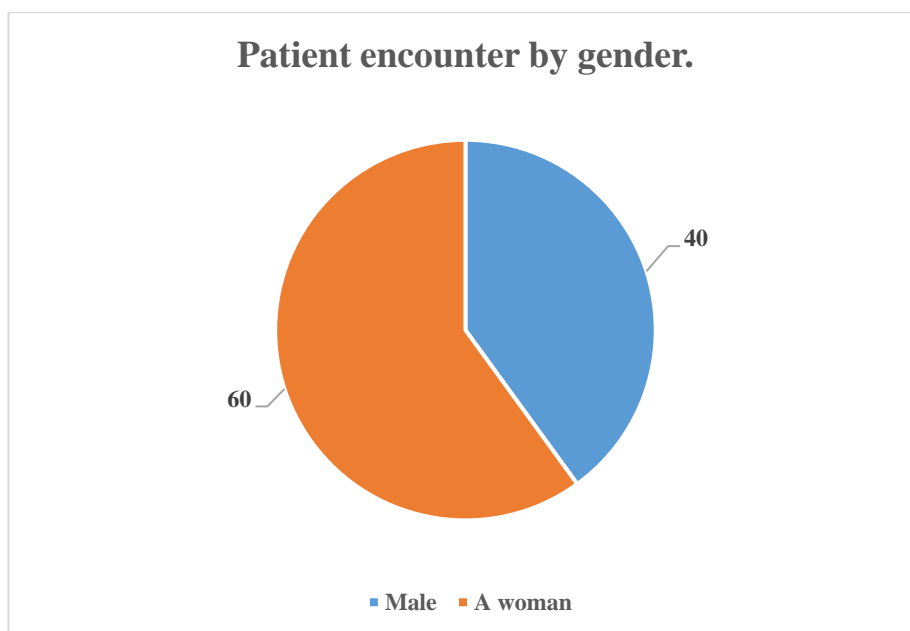
**Table 1. Meeting of patients in district and city section.**



As can be seen in the above table, 20 out of 12 finger ulcers were found among patients with metabolic disease in the regions and cities. This, in turn, is distinguished by the fact that it is a higher indicator than other districts and cities.

When studying the gender of patients, a higher rate was found in women than in men, that is, 40 men and 60 women. Table 2.

**Table 2. Patient encounter by gender.**



In the scientific research on the conducted scientific work, it was found that the patients have other comorbidities than the main disease, that is, 3 gastritis, 5 gastric motility disorders, 6 gastroduodenitis, 25 ulcers of the 12 fingers and other diseases.

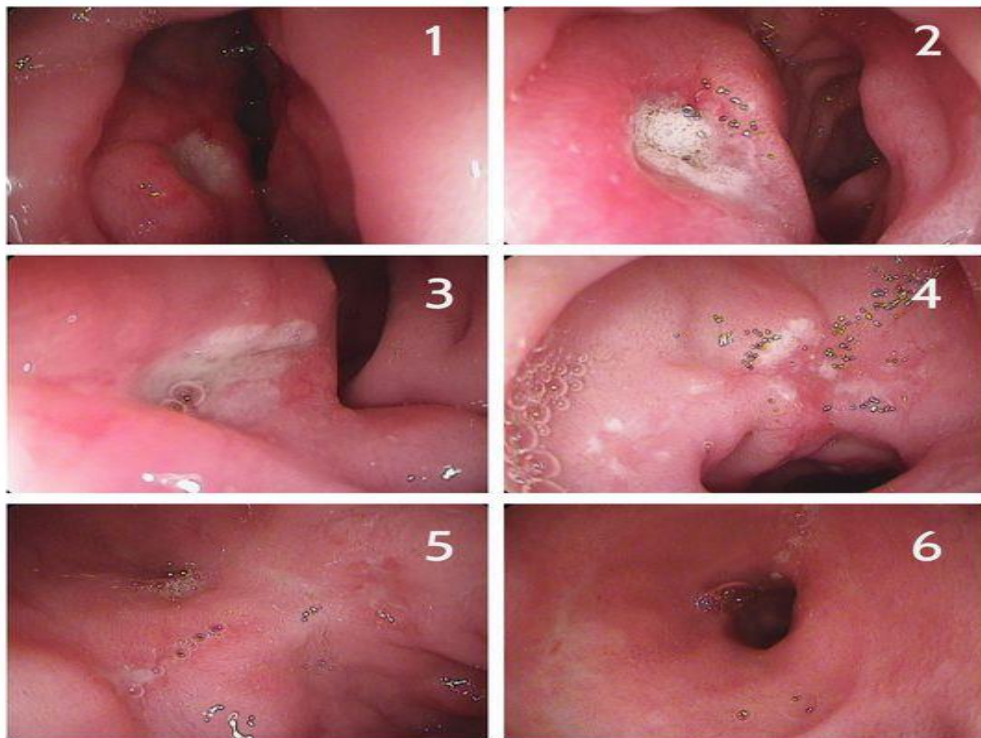
A 63-year-old female patient went to the medical institution complaining of stomach pain, nausea, severe pain after a while, and during the endoscopy examination, it was found that there was a pathological change in the wall of the duodenum. Fig. 1.

**Figure 1. Endoscopic examination of the duodenum.**



**Figure 1. In the endoscopic examination, a 3.0x5.0 cm size, densely constitutive, well-defined brown ulcer was found in the duodenum.**

A 43-year-old female patient was found to have an ulcer in the upper part of the duodenum during endoscopic examination. Fig. 2.



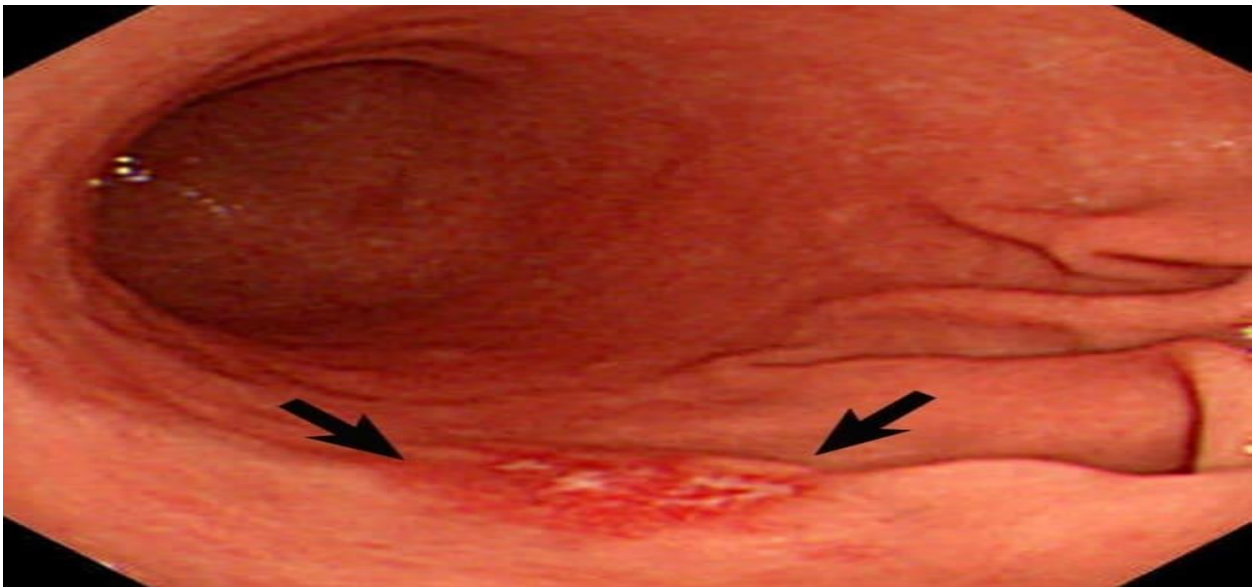
**Figure 2. It is a wound measuring 3.5x5.0 cm, pale yellow in color, with unclear borders, and it is distinguished by a slight penetration into the intestinal wall.**

In a 58-year-old female patient, 12 fingers penetrated the wall of the intestine 0.3x0.5 cm, the borders of the wound are clearly visible, see Fig. 3.



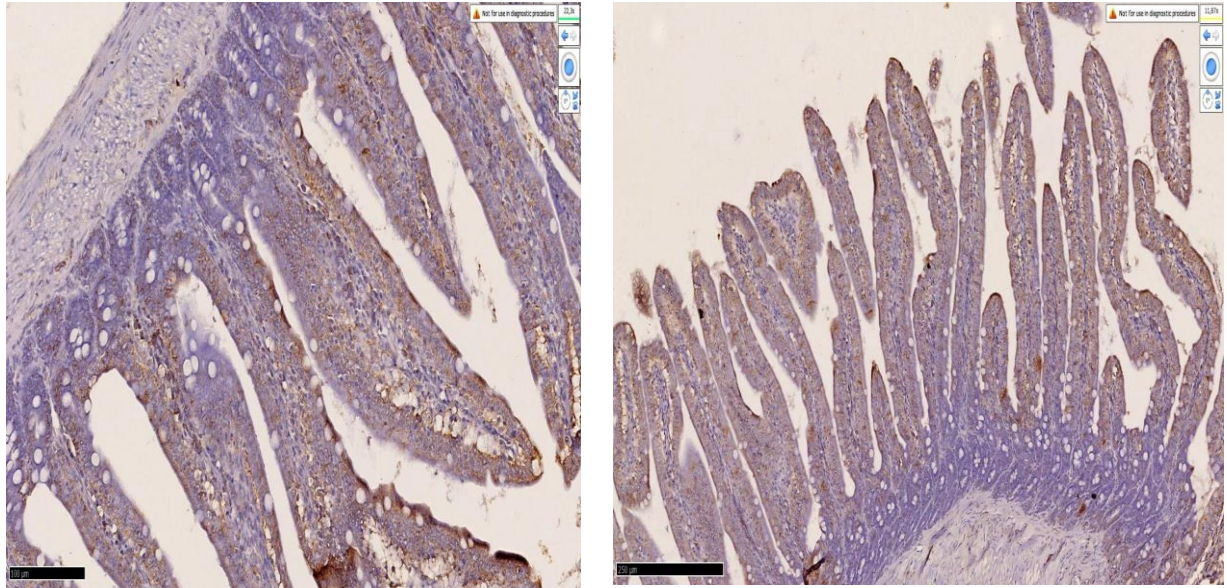
**Figure 3. Endoscopic view of a duodenal ulcer in a 58-year-old patient.**

During research, a 60-year-old female patient was found to have a newly developing ulcer in the antral part of the stomach during endoscopic examination of the duodenum. Figure 4.

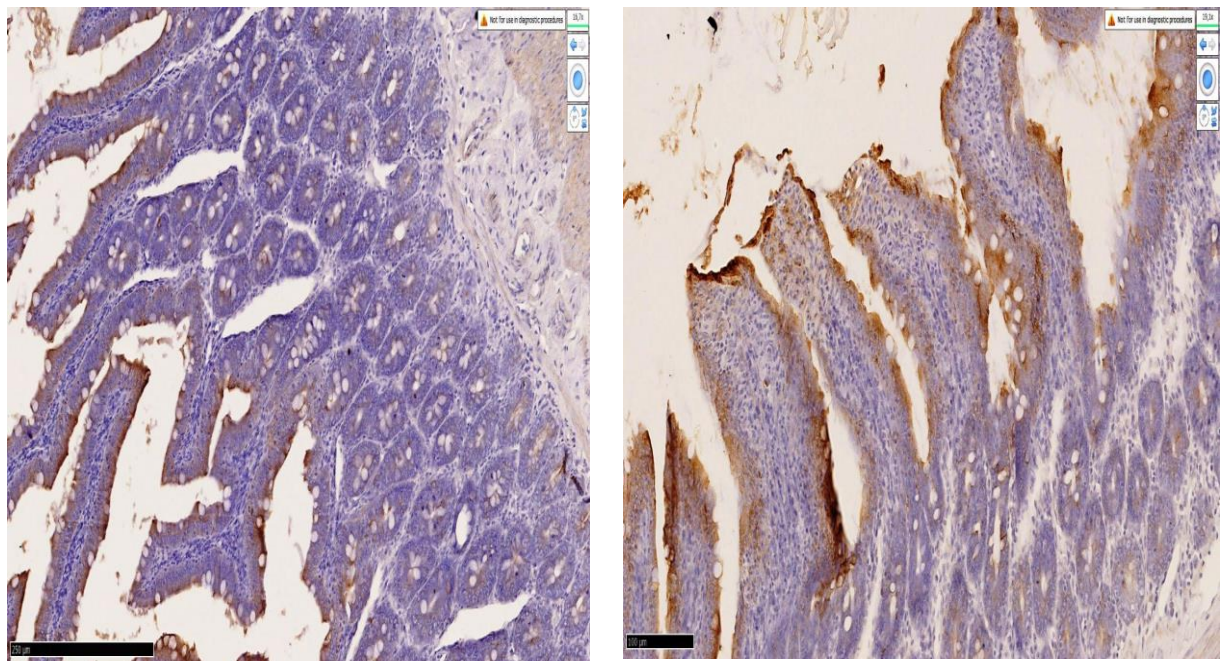


**Figure 4. The location of the ulcer in the antral part of the stomach.**

Most of the patients who applied to the medical institution underwent surgery, and as a result of the operation, the macropreparations sent to the pathologist for anatomical examination were histologically processed and examined.



**Figure 5. A micropreparation prepared as a result of histological examination of 12-finger intestinal ulcer disease. Paint G-E. 10x10**



**Figure 6. Histological appearance of duodenal ulcer disease. Paint G-E. 10x10**

**Conclusions:** in conclusion, it can be said that there is an ulcer in the bulb, antral, body, small curvature, cardiac part of the stomach from the complicated ulcer of duodenal ulcer, which is common in women.

It was found that 12 out of 20 patients with metabolic disease in the region and cities had ulcer disease. This, in turn, was distinguished by the fact that it was a higher indicator than other districts and cities.

When studying the gender of patients, a higher rate was found in women than in men, that is, 40 men and 60 women.

It was found that the patients had other comorbidities than the main disease, that is, 3 cases of gastritis, 5 cases of gastric motility disorders, 6 cases of gastroduodenitis, 25 cases of ulcer disease and other diseases.

Many patients went to the medical institution complaining of stomach pain, nausea, severe pain after a meal, and endoscopy revealed pathological changes in the wall of the duodenum.

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