

UDC 616.31.

<https://doi.org/10.33619/2414-2948/129/17>

INFLAMMATORY DISEASES OF THE DIGESTIVE SYSTEM ORGANS: GASTRITIS, ENTERITIS, AND COLITIS

©*Valizada S.*, ORCID: 0009-0008-6368-061X, Nakhchivan State University,
Nakhchivan, Azerbaijan, saidavalizada@ndu.edu.az

ВОСПАЛИТЕЛЬНЫЕ ЗАБОЛЕВАНИЯ ОРГАНОВ ПИЩЕВАРИТЕЛЬНОЙ СИСТЕМЫ: ГАСТРИТЫ, ЭНТЕРИТЫ И КОЛИТЫ

©*Вализада С.*, ORCID: 0009-0008-6368-061X, Нахчыванский государственный университет,
г. Нахчыван, Азербайджан, saidavalizada@ndu.edu.az

Abstract. This research study analyzes the one-year (2025–2026) clinical and statistical indicators of inflammatory pathologies of the digestive system—specifically gastritis, enteritis, and colitis—which represent critical challenges in modern medicine. The research materials comprise anamnesis data, structured questionnaire surveys, and histopathological examination results obtained via endoscopic biopsies from patients presenting with gastrointestinal complaints. Statistical analyses demonstrate that delayed diagnosis of persistent inflammatory processes directly establishes a predisposition for destructive gastrointestinal tract changes and the development of malignancies, such as gastric, colon, and rectal cancers. Ultimately, this study substantiates early diagnostic criteria and proposes effective prevention strategies to mitigate disease incidence.

Аннотация. Анализируются клинико-статистические показатели воспалительных патологий пищеварительной системы — в частности, гастрита, энтерита и колита — за однолетний период (2025–2026 гг.), представляющих собой серьезную проблему для современной медицины. Материалы исследования включают данные анамнеза, структурированные опросники и результаты гистопатологических исследований, полученные методом эндоскопической биопсии у пациентов с жалобами на желудочно-кишечный тракт. Статистический анализ показывает, что несвоевременная диагностика персистирующих воспалительных процессов напрямую предрасполагает к деструктивным поражениям желудочно-кишечного тракта и развитию злокачественных новообразований, таких как рак желудка, ободочной и прямой кишки. Исследование обосновывает критерии ранней диагностики и предлагает эффективные стратегии профилактики для снижения уровня заболеваемости.

Keywords: gastritis, enteritis, colitis, histopathology, statistics, prevention, gastrointestinal cancer.

Ключевые слова: гастрит, энтерит, колит, гистопатология, статистика, профилактика, рак желудочно-кишечного тракта.

One of the most profound challenges in modern gastroenterology is the annual escalation of inflammatory pathologies of the digestive system within the general population. Urbanization, deteriorating dietary habits, sedentary lifestyles, chronic psycho-emotional stress, and environmental pollution directly impair the functional and structural integrity of the gastrointestinal tract (GIT). Inflammatory diseases of the digestive system primarily manifest as inflammation of the gastric

mucosa (gastritis), the small intestine (enteritis), and the large intestine (colitis). The clinical relevance of these pathologies extends far beyond their high prevalence; it is fundamentally measured by their potential to trigger severe oncological complications. According to recent statistical reports by the World Health Organization (WHO), gastrointestinal cancers — specifically gastric, colon, and rectal carcinomas — rank among the highest globally in terms of both incidence and mortality rates among malignant tumors [12]. In the vast majority of cases, these malignancies develop as a direct consequence of long-standing, latent, or chronic inflammatory processes, such as chronic atrophic gastritis or ulcerative colitis. In inflammatory diseases of the stomach, particularly chronic gastritis, the pathogenic role of *Helicobacter pylori* (*H. pylori*) infection has been definitively established. This microorganism induces persistent inflammation within the mucosa, disrupting cellular proliferation and initiating the multi-step process of carcinogenesis through stages of atrophy and intestinal metaplasia. In the intestinal tract, enteritis and colitis develop due to immune dysregulation, disruptions in the intestinal microbiota (dysbacteriosis), and compromised mucosal barrier functions. Untreated colitis exhibits a high propensity for malignant transformation over extended periods. Given these considerations, conducting a comprehensive clinical and practical-statistical analysis of inflammatory digestive diseases over a one-year period, identifying primary risk factors, and performing early differential diagnosis using histopathological evaluations represents an issue of utmost medical and social urgency [1-6].

Research Objective

The primary objective of this study is to investigate the clinical-statistical parameters of patients diagnosed with inflammatory diseases of the digestive system (gastritis, enteritis, colitis) over a one-year period, to identify the prominent risk factors contributing to their etiology, to evaluate the efficacy of histopathological examinations in early diagnosis, and to formulate a preventative framework aimed at blocking the progression of these inflammatory conditions into malignant tumors (gastric, colon, and rectal cancers) [7].

This study was conducted using a combination of retrospective and prospective methods within a cross-sectional analytical design. Subject data were gathered over a continuous twelve-month period from individuals diagnosed with inflammatory gastrointestinal conditions at participating clinical centers. The study enrolled patients presenting with distinct clinical symptoms of gastrointestinal dyspepsia, including epigastric pain, nausea, belching, altered bowel habits, and meteorism. Patients were stratified based on age groups (young, middle-aged, elderly) and biological sex. Inclusion criteria required a clinically and instrumentally confirmed diagnosis of gastritis, enteritis, or colitis, alongside accessible endoscopic and histopathological records. Exclusion criteria omitted patients presenting with acute surgical emergencies of the GIT or severe decompensated systemic comorbidities [8].

A multi-dimensional approach was implemented for robust data collection. Questionnaire Method: Standardized, structured surveys were administered to record patients' socio-demographic status, dietary patterns (frequency of fast-food consumption, preference for fatty or highly spiced foods), lifestyle habits (tobacco and alcohol consumption), familial history of oncological diseases, and perceived chronic stress levels. Analysis of Medical Records: ambulant and inpatient medical charts were reviewed to extract laboratory data (complete blood counts, biochemical profiles, stool analyses) and instrumental findings, including abdominal ultrasonography, esophagogastroduodenoscopy (EGD), and colonoscopy [9-12].

Histopathological Evaluations: During EGD and colonoscopy procedures, tissue biopsies were obtained from areas exhibiting suspected, macroscopically visible mucosal inflammation or architectural distortion. Biopsy samples were fixed in formalin and processed for microscopic examination to assess inflammatory cell infiltration, mucosal atrophy, and signs of intestinal All

quantitative and qualitative data were compiled and analyzed using standardized statistical software. Qualitative variables were expressed as frequencies and percentages (%). Quantitative variables were evaluated using student's t-tests and Chi-square tests where appropriate. A value of $p < 0.05$ was established as the threshold for statistical significance.

Research Results and Discussion

The analysis of the practical and statistical data accumulated over the one-year timeframe indicates that inflammatory diseases of the digestive system heavily impact young and middle-aged demographics, thereby affecting a substantial segment of the active workforce. The table below outlines the distribution of patients across primary diagnostic categories:

DISTRIBUTION OF PATIENTS
BY DISEASE CLASSIFICATION AND PRIMARY ETIOLOGICAL FACTORS

<i>Disease Classification</i>	<i>Number of Patients, N</i>	<i>Percentage, %</i>	<i>Primary Etiological Factors</i>
Gastritis (<i>Acute/Chronic</i>)	450	50	<i>H. pylori</i> , irregular diet, NSAID overuse
Enteritis	180	20	Infectious agents, dysbacteriosis, dietary indiscretion
Colitis (<i>Specific/Non-specific</i>)	270	30	Autoimmune response, chronic bowel dysfunction, stress
Total	900	100	

The empirical findings reveal that gastritis accounts for half (50%) of all documented inflammatory cases. According to the histopathological outcomes, among patients diagnosed with chronic gastritis, 65% exhibited varying degrees of mucosal atrophy, while 12% presented with confirmed intestinal metaplasia. As documented across extensive clinical literature, intestinal metaplasia serves as a critical precancerous lesion for gastric adenocarcinoma. This finding underscores the vital importance of routing biopsy sampling. Within the intestinal cohort, the proportion of colitis cases (30%) was significantly higher than that of enteritis. The identification of chronic ulcerative processes and cellular atypia within colitis biopsy samples emphasizes the absolute necessity of integrating screening colonoscopies into regular practice to mitigate long-term colon and rectal cancer risks. Data derived from patient questionnaires indicated that 78% of participants acknowledged an insufficient intake of dietary fiber (fresh fruits and vegetables), preferring fast food and dry, irregular meals. Such dietary habits delay intestinal transit time, prolonging mucosal exposure to dietary toxins and establishing a localized inflammatory state conducive to chronic colitis. The primary practical utility of this clinical-statistical study lies in designing a preventative model structured on different intervention tiers. This initial phase targets the general population before disease onset by eliminating modifiable risk factors. Public health campaigns promoting balanced nutrition (increasing dietary fiber, natural antioxidants, and minimizing trans-fats or chemical additives). Educating populations on rigorous hygiene practices to curb the fecal-oral transmission of *H. pylori* and bacterial enteropathogens. Promoting smoking cessation and limiting alcohol intake. Focused on early detection, screening, and immediate, accurate diagnostic intervention:

- Mandating routine EGD and colonoscopy screenings for high-risk cohorts, specifically individuals with a documented family history of gastrointestinal malignancies.

- Ensuring compulsory histopathological biopsies of all actively inflamed or atypical mucosal tissues to detect pre-malignant changes at an asymptomatic stage.

- Eradicating documented infections using standardized protocols, such as targeted antibiotic regimens for *H. pylori*-positive gastritis.

Aimed at preventing complications, managing chronic relapses, and halting malignant transformations into gastric, colon, or rectal cancers in patients with established chronic disease. Continuous clinical monitoring, lifestyle modifications, and regular surveillance endoscopies form the cornerstone of this tier.

Conclusion

This one-year clinical-statistical study confirms that inflammatory conditions of the digestive system—namely gastritis, enteritis, and colitis — maintain a widespread prevalence in contemporary society. Failure to address these diseases systematically not only diminishes patient quality of life but also critically drives the risk of eventual oncological progression in the stomach, colon, and rectum. The synergistic deployment of structured surveys, medical history audits, and precise histopathological analyses enables clinicians to better interpret the pathogenesis and demographic trends of these diseases. Expanding community-driven preventative programs, ensuring the accessibility of screening endoscopies, and fostering patient education will collectively yield a definitive reduction in the overall burden of digestive diseases in the near future.

References:

1. Aghayeva, S., & Mammadov, R. (2023). Gastrointestinal tract diseases in developing regions: An epidemiological review. *Journal of Gastrointestinal Health*, 42(2), 115-122.
2. Aliyev, T. H. (2022). Fundamentals of internal medicine and gastroenterology. Academic Press.
3. American Gastroenterological Association (2024). Clinical practice guidelines on the management of chronic gastritis and H. pylori infection. *Gastroenterology*, 166(3), 512-525.
4. Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*, 71(3), 209-249. <https://doi.org/10.3322/caac.21492>
5. European Society of Gastrointestinal Endoscopy. (2023). Curative and preventive screening protocols for colorectal cancers: Updated recommendations. *Endoscopy*, 55(5), 441-453. <https://doi.org/10.1055/a-2165-6388>
6. Kuipers, E. J., & Grady, W. M. (2022). Colorectal cancer as a complication of long-standing inflammatory bowel disease. *The Lancet*, 400(10352), 612-624.
7. Malfertheiner, P., Megraud, F., Rokkas, T., Gisbert, J. P., Liou, J. M., & Schulz, C. (2024). Management of Helicobacter pylori infection: The Maastricht VI/Florence consensus report. *Gut*, 73(1), 39-61. <https://doi.org/10.1136/gutjnl-2022-327745>
8. Owen, D. A. (2021). Histopathological assessment of mucosal biopsies in chronic inflammatory conditions of the lower gastrointestinal tract. *Modern Pathology*, 34(4), 789-801.
9. Rugge, M., Genta, R. M., Di Mario, F., El-Omar, E. M., Chang, F., & Sung, J. J. (2020). Gastric cancer as a preventable disease: From inflammation to carcinogenesis. *Nature Reviews Gastroenterology & Hepatology*, 17(11), 701-717. <https://doi.org/10.1016/j.cgh.2017.05.023>
10. Sonnenberg, A., & Turner, K. O. (2022). Associations between gastritis, enteritis, and colitis: A large-scale statistical analysis of biopsy records. *American Journal of Gastroenterology*, 117(8), 1245-1252.
11. Sung, J. J., Lau, J. Y., & Kuipers, E. J. (2023). Colorectal cancer screening: Global perspectives and future directions. *The Lancet Gastroenterology & Hepatology*, 8(6), 550-563.
12. World Health Organization. (2025). World health statistics 2025: Monitoring health for the SDGs. World Health Organization.

Список литературы:

1. Aghayeva S., Mammadov R. Gastrointestinal tract diseases in developing regions: An epidemiological review // Journal of Gastrointestinal Health. 2023. V. 42. №2. P. 115-122.
2. Aliyev T. H. Fundamentals of internal medicine and gastroenterology. Academic Press. 2022.
3. American Gastroenterological Association. Clinical practice guidelines on the management of chronic gastritis and H. pylori infection // Gastroenterology. 2024. V. 166. №3. P. 512-525.
4. Bray F., Ferlay J., Soerjomataram I., Siegel R. L., Torre L. A., Jemal A. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries // CA: A Cancer Journal for Clinicians, 2021. V. 71. №3. P. 209-249. <https://doi.org/10.3322/caac.21492>
5. European Society of Gastrointestinal Endoscopy. Curative and preventive screening protocols for colorectal cancers: Updated recommendations // Endoscopy. 2023. V. 55. №5. P. 441-453. <https://doi.org/10.1055/a-2165-6388>
6. Kuipers E. J., Grady W. M. Colorectal cancer as a complication of long-standing inflammatory bowel disease // The Lancet. 2022. V. 400. №10352. P. 612-624.
7. Malfertheiner P., Megraud F., Rokkas T., Gisbert J. P., Liou J. M., Schulz C. Management of Helicobacter pylori infection: The Maastricht VI/Florence consensus report // Gut. 2024. V. 73. №1. P. 39-61. <https://doi.org/10.1136/gutjnl-2022-327745>
8. Owen D. A. Histopathological assessment of mucosal biopsies in chronic inflammatory conditions of the lower gastrointestinal tract // Modern Pathology. 2021. V. 34. №4. P. 789-801.
9. Rugge M., Genta R. M., Di Mario F., El-Omar E. M., Chang F., Sung J. J. Gastric cancer as a preventable disease: From inflammation to carcinogenesis // Nature Reviews Gastroenterology & Hepatology. 2020. V. 17. №11. P. 701-717. <https://doi.org/10.1016/j.cgh.2017.05.023>
10. Sonnenberg A., Turner K. O. Associations between gastritis, enteritis, and colitis: A large-scale statistical analysis of biopsy records // American Journal of Gastroenterology. 2022. V. 117. №8. P. 1245-1252.
11. Sung J. J., Lau J. Y., Kuipers E. J. Colorectal cancer screening: Global perspectives and future directions // The Lancet Gastroenterology & Hepatology. 2023. V. 8. №6. P. 550-563.
12. World Health Organization. World health statistics 2025: Monitoring health for the SDGs. World Health Organization. 2025.

Поступила в редакцию
16.05.2026 г.

Принята к публикации
24.05.2026 г.

Ссылка для цитирования:

Valizada S. Inflammatory Diseases of the Digestive System Organs: Gastritis, Enteritis, and Colitis // Бюллетень науки и практики. 2026. Т. 12. №8. С. 168-172. <https://doi.org/10.33619/2414-2948/129/17>

Cite as (APA):

Valizada, S. (2026). Inflammatory Diseases of the Digestive System Organs: Gastritis, Enteritis, and Colitis. *Bulletin of Science and Practice*, 12(8), 168-172. <https://doi.org/10.33619/2414-2948/129/17>