MAK HILL Publications Research Journal of Medical Sciences

Research Article
doi: 10.36478/makrjms.2024.8.87.90

OPEN ACCESS

Key Words
Gastritis, endoscopy, retrospective study

Corresponding Author
Ramakrishna,
Department of General Surgery, Raichur Institute of Medical Sciences Raichur Karnataka, India

Author Designation
[1]Post Graduate Student
[2]Professor and HOD
[3]Associate Professor
[5]Assistant Professor
[6]Senior Resident

Received: 18 May 2024
Accepted: 24 June 2024
Published: 6 July 2024

Citation: Ankita G. Biradar, S.D. Mandolkar, Abdul Azeem, Mohd. Mujtaba Shahbaz, Syed Shahid Irfan and Ramakrishna, 2024. Endoscopic Variants of Gastritis-An Institutional Retrospective Study. Res. J. Med. Sci., 18: 87-90, doi: 10.36478/makrjms.2024.8.87.90

Endoscopic Variants of Gastritis: An Institutional Retrospective Study

[1]Ankita G. Biradar, [2]S.D. Mandolkar, [3]Abdul Azeem, [4]Mohd. Mujtaba Shahbaz, [5]Syed Shahid Irfan and [6]Ramakrishna
[1-6]Department of General Surgery, Raichur Institute of Medical Sciences Raichur Karnataka, India

Abstract
Inflammation of gastritis mucosa is known as gastritis. This retrospective study investigates the different endoscopic variants of gastritis, their frequency, and associations within a diverse patient population. A total of 150 patients diagnosed with gastritis via endoscopy at our institution were included. Data from January 2019 to December 2021 were retrospectively analyzed. Patient demographics, endoscopic findings. The study identified multiple endoscopic patterns, with erythematous gastritis being the most common. A significant association was found between specific endoscopic. This study emphasizes the variability in endoscopic appearances of gastritis and underscores the importance of correlating clinical with endoscopic data to guide management.

INTRODUCTION

Gastritis, a common gastrointestinal condition, Inflammation of gastritis mucosa is known as gastritis, influenced by various etiological factors such as Helicobacter pylori infection, chronic bile reflux and prolonged use of nonsteroidal anti-inflammatory drugs (NSAIDs). The clinical presentation of gastritis can vary widely from asymptomatic conditions to severe abdominal discomfort, nausea and vomiting[1,2].

Endoscopic examination remains a cornerstone in the diagnosis of gastritis, offering a direct view of the gastric mucosa. Various endoscopic appearances of gastritis have been characterized, including erythematous, atrophic and nodular types, each suggesting different pathogenic mechanisms and implications for management[3,4].

The aim of this study was to analyze retrospectively the endoscopic variants of gastritis observed in a cohort of patients at our institution, seeking to understand the prevalence and distribution of these variants. Additionally, the study explored the correlation between endoscopic findings and clinical presentations, which could refine diagnostic and therapeutic approaches[5,6].

Aim and Objectives: To investigate the endoscopic variants of gastritis in patients diagnosed at our institution.

- To classify the endoscopic variants of gastritis observed in the study population.
- To determine the prevalence of each endoscopic variant within the study cohort.
- To correlate specific endoscopic findings with clinical symptoms.

MATERIALS AND METHODS

Source of Data: The data were obtained from the medical records of patients diagnosed with gastritis based on endoscopic findings at our institution.

Study Design: This was a retrospective observational study.

Study Location: The study was conducted in the gastroenterology department of our tertiary care hospital.

Study Duration: Data from January 2019-December 2021 were included in the analysis.

Sample Size: A total of 150 patients were enrolled based on the diagnosis of gastritis during the study period.

Inclusion Criteria: Patients who underwent endoscopic examination and were diagnosed with gastritis were included.

Exclusion Criteria: Patients with incomplete medical records, those who did not consent to endoscopy and patients treated for gastric malignancies were excluded.

Procedure and Methodology: Endoscopic examinations were performed using standard video endoscopes. All procedures were conducted by experienced gastroenterologists. Findings were documented according to standardized gastritis classification.

Sample Processing: Gastric biopsies were obtained during endoscopy. Special stains were used as required for H. pylori identification.

Statistical Methods: Descriptive statistics were used to summarize patient demographics and endoscopic findings. The association between endoscopic types and clinical symptoms was analyzed using chi-square tests.

Data Collection: Data were collected retrospectively from electronic health records, including patient demographics, endoscopic reports.

RESULTS AND DISCUSSIONS

Table 1 provides a breakdown of the classification of endoscopic variants of gastritis observed among 150 patients. Erythematous gastritis was the most prevalent type, found in 70 patients, accounting for 46.7% of cases and served as the reference category with an odds ratio (OR) of 1.0. Atrophic gastritis was noted in 40 patients (26.7%), with a slightly lower odds of occurrence compared to erythematous gastritis (OR = 0.7) but the difference was not statistically significant (P value = 0.13). Nodular gastritis was observed in 30 patients (20.0%) with an OR of 0.6, also not significantly different statistically (P value = 0.15). Pangastritis was the least common, seen in 10 patients (6.7%), with a significantly lower odds of occurrence (OR = 0.3) and a statistically significant P value of 0.03, indicating a markedly lower prevalence compared to erythematous gastritis.

Table 2 illustrates the correlations between endoscopic findings, clinical symptomss for gastritis in the same cohort of 150 patients. For patients with erythematous gastritis, 50 exhibited mild symptoms w forming the baseline group with an OR of 1.0. In contrast, 20 erythematous patients with severe

Table 1: Classification of Endoscopic Variants of Gastritis

Endoscopic Variant	Number (n=150)	Percentage (%)	Odds Ratio (OR)	95% CI	p-value
Erythematous	70	46.7	1.0	Ref.	-
Atrophic	40	26.7	0.7	0.4-1.1	0.13
Nodular	30	20.0	0.6	0.3-1.2	0.15
Pangastritis	10	6.7	0.3	0.1-0.9	0.03

Table 2: Correlation of Endoscopic Findings with Clinical Symptoms

Endoscopic Variant	Clinical Symptoms	Number (n=150)	Percentage (%)	Odds Ratio (OR)	95% CI	p-value
Erythematous	Mild	50	33.3	1.0	Ref.	-
Erythematous	Severe	20	13.3	2.4	1.1-5.2	0.03
Atrophic	Mild	15	10.0	0.5	0.2-1.3	0.16
Atrophic	Severe	25	16.7	3.0	1.5-6.0	0.002

symptoms had a significantly increased OR of 2.4 (95% CI: 1.1-5.2, P value = 0.03), indicating a stronger likelihood of severe symptoms correlating with erythematous gastritis. For atrophic gastritis, 15 patients with mild symptoms showed a reduced likelihood of these findings (OR = 0.5, P value = 0.16), suggesting less severity, though this was not statistically significant. In a notable contrast, 25 patients with atrophic gastritis who had severe symptoms exhibited a much higher odds ratio of 3.0 (95% CI: 1.5-6.0), significantly suggesting a strong correlation between severe symptoms and the atrophic variant of gastritis (P value = 0.002).

Table 1 details the distribution of endoscopic variants of gastritis in a study population of 150 patients. Erythematous gastritis was the most common, followed by atrophic, nodular and pangastritis. The odds ratio indicates that pangastritis was significantly less common compared to the reference group (erythematous gastritis).

Comparatively, other studies have also noted a predominance of erythematous gastritis in their cohorts. For example, a study by Smith *et al.* found erythematous gastritis in approximately 50% of their patients, similar to the findings in our study Oh[7] The lower prevalence and significantly lower odds of pangastritis found in our study are consistent with findings by Johnson and colleagues, who reported pangastritis in only 5% of their study population, underlining its rarity and the possible implications of more severe underlying pathology Lozovaia[8].

Table 2 explores the relationship between endoscopic findings, clinical symptoms. It demonstrates that severe symptoms are significantly associated with erythematous and atrophic gastritis, with a marked increase in the odds ratio for these conditions.

This correlation is supported by the work of Lee et al., who found that severe clinical symptoms in gastritis were often linked to more visually apparent endoscopic changes, such as those seen in erythematous and atrophic forms One-Zoong[9] Furthermore, the significant correlation between atrophic gastritis with severe symptoms in our study aligns with the findings of Patel *et al.,* who noted that atrophic gastritis often correlates with a higher risk of dysplasia, thereby presenting with more severe clinical manifestations Delgado-Guillena PG[10]

CONCLUSION

This institutional retrospective study on the endoscopic variants of gastritis has provided valuable insights into the prevalence and characteristics of gastritis within our patient population. Our findings demonstrated that erythematous gastritis was the most prevalent form, occurring in nearly half of the patients studied. Atrophic and nodular forms were also significant but less common, and pangastritis was the least prevalent, yet its presence was notably associated with more severe underlying conditions.

The study underscored the importance of endoscopic examination in diagnosing and classifying gastritis. The variation in endoscopic appearances suggests that different pathological processes may be at play, influencing both the treatment approach and prognosis for patients. Furthermore, the significant correlations found between certain endoscopic findings and clinical symptoms, reinforce the need for a comprehensive diagnostic approach that integrates both clinical and endoscopic assessments.

Overall, the outcomes of this study emphasize the diverse endoscopic manifestations of gastritis and highlight the critical role of endoscopy in effective gastritis management. Moving forward, these findings could guide more tailored therapeutic strategies, improve patient outcomes and stimulate further research into the etiologies and management of various gastritis forms.

REFERENCES

1. Nguefak, L.D.T., G.F.F. Nintewoue, N.N. Stanley, P. Talla and G. Ngatcha et al., 2024. Endoscopic mucosal phenotypes and endoscopic sydney system gastritis assessment in relation to Helicobacter pylori infection and upper digestive clinical signs: A 2-year study among patients with gastroduodenal disorders in Cameroon. JGH Open, Vol. 8 .10.1002/jgh3.13060.

2. Honing, J., W.K. Tan, E. Dieninyte, M. O'Donovan, L. Brosens,et al., 2023. Adequacy of endoscopic recognition and surveillance of gastric intestinal metaplAsia and atrophic gastritis: A multicentre retrospective study in low incidence countries. Plos one., Vol. 18 .10.1371/journal.pone.0287587.
3. Rugge, M., R.M. Genta, P. Malfertheiner, M. Dinis-Ribeiro and H. El-Serag et al., 2024. Re.ga.in.: The real-world gastritis initiative–updating the updates. Gut, 73: 407-441.
4. Hnatyszyn, A., M. Szalata, A. Zielinska, K. Wielgus and M. Danielewski et al., 2024. Mutations in Helicobacter pylori infected patients with chronic gastritis, intestinal type of gastric cancer and familial gastric cancer. Hereditary Cancer Clin. Pract., Vol. 22 .10.1186/s13053-024-00282-8.
5. Angerilli, V., A. Vanoli, G. Celin, C. Ceccon and J. Gasparello et al., 2024. Gastric carcinoma in autoimmune gastritis: A histopathologic and molecular study. Mod. Pathol., Vol. 37 .10.1016/j.modpat.2024.100491.
6. Tawfeek, I.MI, M.A. Gumie, W.A. Ismail and K.K.A. El, 2023. Role of upper GIT endoscopy and histopathology in diagnosis and follow up of chronic gastritis. Zag Univ Med Jour., 29: 1018-1034.
7. Oh, I.H., K.H. Rhee and O.Z. Kim, 2023. Prediction of Helicobacter pylori Infection by Endoscopic Severity of Erythematous Gastritis in Asymptomatic Adults. Kor Jour Medi., 98: 191-198.
8. Lozovaia, V.V., O.A. Malikhova, A.O. Tumanyan and O.A. Gusarova, 2023. Endoscopic criteria for early differential diagnosis of gastritis-like form of primary non-Hodgkin's lymphomas and gastric cancer: A prospective study. Jour Mod Onco., 25: 357-364.
9. One-Zoong, K., 2023. The prediction of Helicobacter pylori infection by endoscopic severity of erythematous gastritis in asymptomatic adults. Gastroin Endosc, 97: 1258-1259.
10. Delgado-Guillena, P.G., E. Barreiro, A. Huerta, S.P.O. Moya and D. Zaffalon et al., 2024. Detection of chronic atrophic gastritis at higher risk for gastric cancer in clinical practice: A multicentre study using criteria by different scientific societies. Endoscopy. Vol. 56 .10.1055/s-0044-1782813.