

# Gastric cancer in patients with chronic gastritis Cáncer gástrico en pacientes con gastritis crónica

Yarintza Coromoto Hernández-Zambrano ua.yarintzahernandez@uniandes.edu.ec Universidad Regional Autónoma de los Andes (UNIANDES), Ambato, Tungurahua, Ecuador https://orcid.org/0000-0002-9524-3325

#### **ABSTRACT**

**Objective**: to analyse gastric cancer in patients with chronic gastritis. **Methods**: based on an exhaustive analysis of medical records as a primary source of data, focusing on patients diagnosed with gastric cancer and treated at the Hospital IESS Latacunga, Ecuador. **Results**: The distribution of patients with gastric cancer revealed that 45% were in stage IIA, 39% in stage IV (final), 11% in stage 0 and the remaining 5% in stage IA. These findings indicate variability in the stages of diagnosis, with a significant presence of stage cases. **Conclusion**: The incidence of gastric cancer also showed a clear association with age, being more prevalent in individuals older than 60 years. This pattern reinforces the importance of surveillance and management of gastrointestinal conditions in the elderly population as a key strategy for gastric cancer prevention.

Descriptors: microbiology; stomach; digestive system. (Source: DeCS).

#### **RESUMEN**

**Objetivo**: analizar el cáncer gástrico en pacientes con gastritis crónica. **Método**: se basó en el análisis exhaustivo de historias clínicas como fuente primaria de datos, focalizándose en pacientes diagnosticados con cáncer gástrico y atendidos en el Hospital IESS Latacunga, Ecuador. **Resultados**: La distribución de los pacientes con cáncer gástrico reveló que el 45% se encontraba en la etapa IIA, el 39% en la etapa IV (final), el 11% en la etapa 0 y el restante 5% en la etapa IA. Estos hallazgos indican una variabilidad en las etapas de diagnóstico, destacando la presencia significativa de casos en etapas. **Conclusión**: La incidencia del cáncer gástrico mostró una clara asociación con la edad, siendo más prevalente en individuos mayores de 60 años. Este patrón refuerza la importancia de la vigilancia y el manejo de afecciones gastrointestinales en la población de edad avanzada como una estrategia clave para la prevención del cáncer gástrico.

**Descriptores**: microbiología; estómago; sistema digestivo. (Fuente: DeCS).

Received: 02/07/2022. Revised: 03/07/2022. Approved: 04/08/2022. Published: 01/09/2022. Clinical communication



Sanitas
Revista arbitrada de ciencias de la salud
Vol. 1(3), 1-8, 2022
Cáncer gástrico en pacientes con gastritis crónica
Gastric cancer in patients with chronic gastritis
Yarintza Coromoto Hernández-Zambrano

### INTRODUCTION

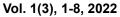
In the intricate landscape of gastrointestinal pathophysiology, chronic gastritis stands as a prominent player, intertwining its presence in the gastric mucosa with a persistence that defies temporal barriers. Not simply the chronic inflammation of the stomach epithelial layer, chronic gastritis reveals its nature as a silent precursor to a more formidable and challenging clinical entity: gastric cancer. <sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> This pathological connection, seemingly marked by the subtle line of sustained inflammation, invites us to dive into the intricate molecular and cellular pathways linking these two conditions, unravelling a biological narrative that goes beyond the surface, challenging conventional paradigms and demanding a deeper understanding of the events that drive chronic gastritis towards gastric oncogenesis. <sup>7</sup> <sup>8</sup> <sup>9</sup> <sup>10</sup>

In this paradigm, a detailed understanding of the underlying mechanisms not only expands our knowledge, but also opens the door to new prevention and treatment strategies, offering a glimmer of hope in the battle against one of the most challenging neoplasms of the digestive system. <sup>11</sup>

In the specific context of Ecuador, despite the decrease in the incidence and mortality of gastric cancer, several factors, such as geographical location, physical and biological conditions, as well as social, economic and cultural aspects, influence the generation and development of this disease. These factors call for a comprehensive approach to understanding the challenges and complications faced by people affected by gastric cancer as a consequence of chronic gastritis, especially in the case of older adults. It is also imperative to consider preventive measures in this complex web of causes and effects. <sup>12</sup>

Gastric cancer, as it manifests itself in the stomach mucosa, resembles other gastrointestinal disorders, such as bloating, gas, heartburn and fullness. It is classified into two types: intestinal and diffuse, the latter being more severe as it





Cáncer gástrico en pacientes con gastritis crónica Gastric cancer in patients with chronic gastritis Yarintza Coromoto Hernández-Zambrano

crosses the gastric wall, causes peritoneal metastasis and exhibits rapid progression, resulting in a poorer prognosis. This context underscores the urgent need for prevention strategies and holistic understanding to address the complexity of this medical challenge. <sup>13</sup> <sup>14</sup> <sup>15</sup>

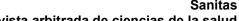
Based on this approach, we aim to analyse gastric cancer in patients with chronic gastritis.

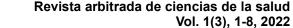
# **METHOD**

The present study was based on the exhaustive analysis of medical records as a primary source of data, focusing on patients diagnosed with gastric cancer and treated at the Hospital IESS Latacunga, during the period between April 2019 and February 2020. The detailed review of these medical records was the central pillar for the identification and verification of the selected cases, providing a clear and contextualised perspective of the manifestation of the disease in this specific medical centre.

To carry out the data collection process, an observation guide was designed and used as a key instrument. This guide was meticulously conceived to capture crucial data related to symptoms, underlying causes and the predominant age range of patients affected by gastric cancer. Other relevant factors that could shed light on the complexity of the disease and provide valuable information for the development of the study were also included.

The application of the observation guide was extended to a group of 44 patients, all of them receiving medical care at the IESS Latacunga Hospital, during the reference period. This systematic approach allowed us to obtain a representative sample that encompassed diverse manifestations and contexts of the disease, thus contributing to the robustness and generalisability of the study's findings.





Cáncer gástrico en pacientes con gastritis crónica Gastric cancer in patients with chronic gastritis

Yarintza Coromoto Hernández-Zambrano

Importantly, the selection of the study period was based on the availability and

accessibility of medical records, as well as the temporal relevance of the data

collected to understand the dynamics of the disease in the local and temporal context

considered.

Descriptive statistical analysis was applied with the data obtained to be presented in

percentages and frequencies.

The study was conducted in accordance with the ethical principles set out in the

Declaration of Helsinki and relevant national regulations. Ethical approval was

obtained from the Research Ethics Committee of the IESS Latacunga Hospital prior

to initiating data collection. All participants provided informed consent before being

included in the study, thus guaranteeing their autonomy and protection.

Confidentiality of personal information was rigorously maintained by assigning

numerical codes to participants rather than revealing their real identities in any report

or presentation related to the research. The data collected were used exclusively for

research purposes and were stored securely, ensuring privacy and compliance with

data protection regulations.

RESULTS

The distribution of patients with gastric cancer revealed that 45% were at stage IIA,

39% at stage IV (final), 11% at stage 0 and the remaining 5% at stage IA. These

findings indicate variability in the stages of diagnosis, with a significant presence of

advanced stage cases.

Review of medical records provided valuable information on the incidence of gastric

cancer. There was a marked inclination towards males as the most affected group.

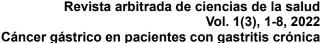
The bacterium Helicobacter pylori was identified as the main cause of this disease,

underlining the importance of addressing Helicobacter pylori infection in preventive

and treatment strategies.

4





Gastric cancer in patients with chronic gastritis Yarintza Coromoto Hernández-Zambrano

Sanitas

In addition, it was highlighted that the majority of patients diagnosed with gastric cancer were at stage IIA. This finding suggests the need to improve early detection methods and raise awareness of the importance of regular medical screening, especially in those with risk factors.

The incidence of gastric cancer also showed a clear association with age, being more prevalent in individuals older than 60 years. This pattern reinforces the importance of surveillance and management of gastrointestinal conditions in the elderly population as a key strategy for gastric cancer prevention.

In summary, the combination of clinical data, diagnostic stages and risk factors identified in this study provides a comprehensive view of the dynamics of gastric cancer in the population studied, highlighting critical areas for effective intervention and prevention of this disease.

## CONCLUSION

Detailed radiography of the distribution of gastric cancer patients in our study reveals a complex and, in some respects, worrying picture. The marked presence of 45% of cases in stage IIA, together with 39% in stage IV, points to the existence of significant variability in the stages of diagnosis. These results underline the urgency of improving early detection methods and raising awareness of the importance of regular medical evaluations, particularly in individuals with risk factors, in order to address advanced stage cases and improve clinical outcomes.

Extensive chart review has illuminated the reality of gastric cancer incidence, highlighting a pronounced skew towards males as the most affected group. The identification of Helicobacter pylori as the main cause of this disease highlights the critical need for preventive and treatment strategies targeting this bacterium, thus addressing one of the fundamental risk factors in the prevention of gastric cancer.

5

Sanitas Revista arbitrada de ciencias de la salud

Vol. 1(3), 1-8, 2022

Cáncer gástrico en pacientes con gastritis crónica Gastric cancer in patients with chronic gastritis

Yarintza Coromoto Hernández-Zambrano

The significant finding that the majority of patients diagnosed were at stage IIA

emphasises the relevance of implementing measures to facilitate early detection and

timely treatment. This suggests the need to increase public awareness and promote

education on the importance of regular screening, especially in individuals with a

history or predisposition to develop the disease.

Additionally, the clear association between the incidence of gastric cancer and age,

with an emphasis on individuals over 60 years of age, highlights the importance of

effective surveillance and management of gastrointestinal conditions in the elderly

population. These results underline the need for specific prevention strategies

tailored to this demographic group.

In summary, the clinical data at the stages of diagnosis and risk factors identified in

this study provide a comprehensive view of the dynamics of gastric cancer in the

population analysed. These findings delineate critical areas for intervention and

underscore the importance of preventive and educational strategies to effectively

address this disease, thereby improving the health and well-being of the community.

**FUNDING** 

Non-monetary

**CONFLICT OF INTEREST** 

There is no conflict of interest with persons or institutions involved in the research.

**ACKNOWLEDGEMENTS** 

To the patients who participated in the research.

REFERENCES

1. Karimi P, Islami F, Anandasabapathy S, Freedman ND, Kamangar F.

Gastric cancer: descriptive epidemiology, risk factors, screening, and

6



Sanitas
Revista arbitrada de ciencias de la salud
Vol. 1(3), 1-8, 2022
Cáncer gástrico en pacientes con gastritis crónica
Gastric cancer in patients with chronic gastritis
Yarintza Coromoto Hernández-Zambrano

- prevention. *Cancer Epidemiol Biomarkers Prev.* 2014;23(5):700-713. doi:10.1158/1055-9965.EPI-13-1057
- 2. Petryszyn P, Chapelle N, Matysiak-Budnik T. Gastric Cancer: Where Are We Heading? *Dig Dis.* 2020;38(4):280-285. doi:10.1159/000506509
- 3. Guggenheim DE, Shah MA. Gastric cancer epidemiology and risk factors. *J Surg Oncol.* 2013;107(3):230-236. doi:10.1002/jso.23262
- 4. Johnston FM, Beckman M. Updates on Management of Gastric Cancer. *Curr Oncol Rep.* 2019;21(8):67. Published 2019 Jun 24. doi:10.1007/s11912-019-0820-4
- Tan Z. Recent Advances in the Surgical Treatment of Advanced Gastric Cancer: A Review. *Med Sci Monit*. 2019;25:3537-3541. Published 2019 May 13. doi:10.12659/MSM.916475
- Camilo V, Sugiyama T, Touati E. Pathogenesis of Helicobacter pylori infection. *Helicobacter*. 2017;22 Suppl 1:10.1111/hel.12405. doi:10.1111/hel.12405
- 7. Eusebi LH, Zagari RM, Bazzoli F. Epidemiology of Helicobacter pylori infection. *Helicobacter*. 2014;19 Suppl 1:1-5. doi:10.1111/hel.12165
- 8. Mentis A, Lehours P, Mégraud F. Epidemiology and Diagnosis of Helicobacter pylori infection. *Helicobacter*. 2015;20 Suppl 1:1-7. doi:10.1111/hel.12250
- **9.** Attila C, Figueroa M. Situación del cáncer gástrico en el mundo y en Chile [Situation of gastric cancer in the world and in Chile]. Revista Chilena de Cirugía. 2016; 69(6): p. 502-507.
- 10. Rodríguez F. Cáncer Gástrico: Diagnóstico y Manejo [Gastric Cancer: Diagnosis and Management]. Revista Médica de Costa Rica y Centroamérica LXXI. 2014; 339(610): p. 339 342.
- 11. Rollán A, Cortés P, Calvo A, Bufadel M, González R, Heredia C, et al. Diagnóstico precoz de cáncer gástrico. Propuesta de detección y seguimiento de lesiones premalignas gástricas: protocolo ACHED [Early diagnosis of gastric cancer. Proposal for detection and follow-up of gastric premalignant lesions: ACHED protocol]. Revista Médica de Chile. 2014; 142: p. 1181-1192.
- 12. Corral F, Cueva P, Yépez J, Tarupi W. Tendencias en incidencia y mortalidad porcáncer durante tres decadas en Quito Ecuador. Colombia Médica. 2018; 49(1): p. 36-37.
- 13. Song Z, Wu Y, Yang J, Yang D, Fang X. Progress in the treatment of advanced gastric cancer. *Tumour Biol.* 2017;39(7):1010428317714626. doi:10.1177/1010428317714626



Sanitas Revista arbitrada de ciencias de la salud Vol. 1(3), 1-8, 2022 Cáncer gástrico en pacientes con gastritis crónica Gastric cancer in patients with chronic gastritis Yarintza Coromoto Hernández-Zambrano

- 14. Correa P. Gastric cancer: overview. *Gastroenterol Clin North Am.* 2013;42(2):211-217. doi:10.1016/j.gtc.2013.01.002
- 15. Smyth EC, Nilsson M, Grabsch HI, van Grieken NC, Lordick F. Gastric cancer. *Lancet*. 2020;396(10251):635-648. doi:10.1016/S0140-6736(20)31288-5

Copyright: 2022 By the authors. This article is open access and distributed under the terms and conditions of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) licence.

https://creativecommons.org/licenses/by-nc-sa/4.0/