



BRIEF COMMUNICATION

Factors associated with the development of gastritis in university students

Factores asociados al desarrollo de la gastritis en estudiantes universitarios

Angelo Ariel Ibáñez-Torres¹✉, Cristhian Sebastián Ramos-Hachi¹, Iruma Alfonso-González¹

¹Universidad Regional Autónoma de los Andes (UNIANDES). Ecuador.

Received: December 14, 2022

Accepted: January 07, 2023

Published: January 19, 2023

Cite as: Ibáñez-Torres AA, Ramos-Hachi CS, Alfonso-González I. Factors associated with the development of gastritis in university students. Rev Medical Sciences [Internet]. 2022 [cited: date accessed]; 27(2023): e5854. Available from: <http://revcmpinar.sld.cu/index.php/publicaciones/article/view/5854>

ABSTRACT

Introduction: gastritis is a common entity in the general population. In university students it is associated with decreased academic performance.

Objective: to describe the most common causes in the development of gastritis in university students.

Methods: a search for information was carried out using the SciELO database and Google Scholar. For the collection of information, specific formulas were used for each database, by combining terms using Boolean operators. For the selection of the information, we proceeded to determine among the articles retrieved, the monographs, theses, articles and other refereed information published between 2020 and 2022.

Development: the available bibliography on gastritis in university students is scarce in the Latin American and Ecuadorian context. Personal, food and water hygiene factors converge in the development of gastritis, which favors infection by *Helicobacter Pylori*, the main causal agent. Factors such as smoking habits and alcohol consumption affect the gastric mucosa and predispose to the development of gastritis. Stress is an important agent in university students for the development of this disease. Educational campaigns aimed at students should be designed, as well as measures for its treatment.

Conclusions: *Helicobacter Pylori*, hygienic-sanitary conditions, deficient and poorly nutritious food and stress are identified as the main causal factors of gastritis.

Keywords: Gastritis; Students; Stress; Life Style.

RESUMEN

Introducción: la gastritis constituye una entidad común en la población de forma general. En los universitarios se asocia a disminución del rendimiento académico.

Objetivo: describir las causas más comunes en el desarrollo de la gastritis en estudiantes universitarios

Métodos: se realizó una búsqueda de información con el empleo de la base de datos SciELO y Google Académico. Para la recopilación de la información se emplearon fórmulas específicas para cada base de datos, mediante la combinación de términos con operadores booleanos. Para la selección de la información se procedió a determinar entre los artículos recuperados, las monografías, tesis, artículos y demás información arbitrada que se publicaron entre 2020 y 2022.

Desarrollo: en el contexto latinoamericano y ecuatoriano, la bibliografía disponible sobre gastritis en universitarios es escasa. En el desarrollo de la gastritis convergen factores higiénicos tanto personales como de los alimentos y el agua, lo cual favorece la infección por *Helicobacter Pylori*, principal agente causal. Factores como el tabaquismo y el consumo de alcohol afectan la mucosa gástrica y predisponen al desarrollo de gastritis. El estrés constituye un agente de importancia en los universitarios para el desarrollo de esta enfermedad. Se deben trazar campañas educativas dirigidas a los estudiantes, así como medidas para el tratamiento de la misma.

Conclusiones: se identifican como principales factores causales de la gastritis al *Helicobacter Pylori*, las condiciones higiénico-sanitarias, la alimentación deficiente y poco nutritiva así como el estrés.

Palabras clave: Gastritis; Estudiantes; Estrés; Estilo de Vida.

INTRODUCTION

In Ecuador, the presence of gastritis in the general population is high. According to data from the Ecuadorian Institute of Digestive Diseases (IECED), about 70 % of the population suffers from gastritis, the number of consultations for gastric affections exceeds 80 %.⁽¹⁾

Among the main causes of this entity is *Helicobacter Pylori* (HP), it is also attributed to different lifestyle conditions such as alcohol, eating habits, consumption of spicy foods and others.^(1,2,3)

Gastritis does not always have to be initiated by bacteria. Stress and anxiety have a certain effect on the digestive system, therefore, academic and working days, personal and emotional situations can be a trigger to develop gastritis.⁽⁴⁾

The state of health of students has a certain relationship with their academic performance. A study in Peru showed that students who do not have the resources for good nutrition and who attend classes without breakfast or only eat lunch are at an academic disadvantage in relation to those who have a good diet. The study concluded that if the state of health deteriorates, academic performance will also be directly affected, i.e., those students who suffer from gastritis are likely to have a lower academic performance compared to students with better health conditions.⁽⁴⁾

In Ecuador, the number of university students with gastritis is increasingly higher, and it shows that academic performance is also directly affected when health is compromised. Therefore, the present article aims to describe the most common causes in the development of gastritis in university students.

METHODS

An information search was performed using the SciELO database and Google Scholar. The terms "Gastritis" and "University Students" were used to collect the information; by combining these terms with Boolean operators, search strategies were structured using specific formulas for each database.

For the selection of the information, we proceeded to determine among the articles retrieved, the monographs, theses, articles and other refereed information published between 2020 and 2022. Likewise, a screening was carried out to use those that were related to the Ecuadorian reality and that of Latin America and the Caribbean. Eleven documents were selected for the development of this study.

DEVELOPMENT

Although gastritis is currently a disease that afflicts university students, the volume of information on the subject is very scarce and even more so in a national context. There is research, although scarce, on the study of gastritis, but it is not focused on university students. Likewise, most of the available research is outdated, offering data from past periods with conditions different from the current reality.

Gastritis in university students is a self-feeding problem with no clear solution. While it is true that the development of the disease is individualized through lifestyle, it is obvious that the problem converges for several reasons.

Gastritis develops for several reasons, but in the analyzed documents the most frequent is HP, there is also nervous gastritis due to emotional imbalances or when a student is exposed to high levels of stress.^(5,6,7,8,9)

The reasons for contracting gastritis due to HP are various, a clear example is the study carried out by the Biochemistry and Pharmacy faculty of the Polytechnic School of Chimborazo, which evaluated the presence of the bacterium in students and teachers of the faculty by means of the ELISA method. The causes were linked to the washing of food with tap water, and the development of gastrointestinal disease was attributed to the consumption of food at street stalls. The study performed qualitative screening by HP antigen where 18.47% of the individuals tested positive.⁽¹⁰⁾

The family and the home can also become determining factors in the appearance of gastritis. When there is a history of HP in the family, food is not always the main cause since the contagion of the bacteria starts at home and the neglect of personal hygiene is a notable reason for contracting gastritis from an early age.⁽⁵⁾

The quality of the water consumed is of utmost importance, which sometimes comes from the tap or other means of storage and distribution that can be contaminated and be a way to acquire HP.

In San Mateo, province of Esmeraldas, Ecuador, a study was conducted on the quality of water and eating styles of adolescents and it was found that when social conditions are not adequate and the home does not have potable water, the use of bottled water helps in the prevention of diseases, including gastritis. For the diagnosis of gastritis, a stool test for HP antigens was applied individually, and of the 119 adolescents, only 22 tested positive for HP.⁽³⁾

From the experience of the researchers, students are in a vulnerable position since their diet, besides being variable, is subject to fast food and school meals. These foods generally provide a low percentage of nutritional elements, to which are added the poor handling of food, generating a spread of agents.

In a study carried out in the city of Babahoyo, Ecuador, the lack of care taken by people with gastritis was highlighted. The age group in which it was developed was between 20 and 30 years old and one of the main factors in the appearance of gastritis is their diet, highlighting that several of the ingredients used in the preparation of food were formed by the excess of condiments, citrus and a low level of sanitation when handling food. Those who took part in the study showed that the type of food they ate was determined by its taste and accessibility, but not by the nutritional contribution or benefit it can provide. It is also highlighted that the consumption of alcohol and cigarettes directly affects people's state of health.⁽²⁾

The consumption of alcoholic beverages and smoking also influences the development of gastritis by affecting the state of the gastric mucosa. These substances have irritant properties for the mucosa, added to the toxicity and damage to the circulation caused by smoking.

In the authors' experience, university students constitute an important niche in the sale of alcohol and cigarettes at the national level. This is caused by the consumption of cigarettes, either by habit, or as a way to "improve" the mood in situations of stress or teaching overload. Similarly, alcohol is used in festivities to "disconnect" or to celebrate the end or closure of a teaching period.

In people who eat inadequately, at sporadic times, as well as those with little responsibility for their diet, mainly by default, the presence of gastritis is very common.

In the Basic Hospital IESS of Duran in the province of Guayas, in collaboration with the gastroenterology area, a field study was carried out where the main topic was chronic gastritis, and it was performed in an age group between 20 and 34 years old. Of the 52 people suffering from chronic gastritis, 69% were women; dietary conditions were associated with the development of the disease. It was determined that although it is a generalized disease, the means by which the disease is contracted are always associated with the patient's lifestyle.⁽¹¹⁾

CONCLUSIONS

The available bibliography on gastritis in university students is scarce in the Latin American and Ecuadorian context. Helicobacter Pylori, hygienic-sanitary conditions, deficient and poorly nutritious food and stress are identified as the main causal factors of gastritis. Educational campaigns aimed at students should be designed, as well as measures for its treatment.

Conflict of Interest

The authors declare that there is no conflict of interest.

Sources of Funding

The authors received no funding.

Authorship Contribution

All authors participated in conceptualization, research, writing - initial draft, writing - revision and editing.

BIBLIOGRAPHIC REFERENCES

1. Gaspar Paucar ME, Jacobe Medrano VM. Prevalencia de Factores de Riesgo Tradicional de la Gastritis en Universitarios de Huancayo 2016. [Tesis de titulación]. Perú: Universidad Peruana Los Andes; 2017 [citado 27/09/2022]. Disponible en: <https://hdl.handle.net/20.500.12848/155>
2. Arroyo Espinoza YL, Pacheco Bautista BE. Evaluación de los hábitos alimentarios y parámetros antropométricos en pacientes con gastritis de 20 a 60 años que acuden al centro de especialidades médicas y salud familiar CEMESFA en la ciudad de Babahoyo Año 2021. 2021 [citado 27/09/2022]; Disponible en: <http://repositorio.ucsg.edu.ec/handle/3317/16942>
3. Murillo-Zavala AM, Moreira-Rivadeneira KM, Campos-Pachito MJ, Lucas-Parrales EN. Helicobacter pylori y su asociación con hábitos alimenticios en adolescentes de la parroquia San Mateo ciudad Esmeraldas. Polo del Conocimiento [Internet]. 2021 [citado 27/09/2022]; 6(5):150. Disponible en: <https://polodelconocimiento.com/ojs/index.php/es/article/view/2642>
4. Cuases MGP. Estrés factor predisponente para gastritis nerviosa. Boletín Informativo CEI [Internet]. 2021 [citado 27/09/2022]; 8(2):60-4. Disponible en: <https://revistas.umariana.edu.co/index.php/BoletinInformativoCEI/article/view/2677>
5. Collantes Delgado JA, Ojeda García LM. Prevalencia de Helicobacter Pylori en Pacientes Adultos con Gastritis que se Atienden en el Laboratorio "La Luz" en el Año 2019 en Jaén. Universidad Nacional de Jaén [Internet]. 2021 [citado 27/09/2022]. Disponible en: <http://localhost/jspui/handle/UNJ/196>
6. Gisbert JP, Alcedo J, Amador J, Bujanda L, Calvet X, Castro-Fernández M, et al. V Spanish Consensus Conference on Helicobacter pylori infection treatment. Gastroenterol Hepatol [Internet]. 2022 [citado 27/09/2022]; 45(5):392-417. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/34629204/>
7. Öztekin M, Yılmaz B, Ağagündüz D, Capasso R. Overview of Helicobacter pylori Infection: Clinical Features, Treatment, and Nutritional Aspects. Diseases [Internet]. 2021 [citado 27/09/2022]; 9(4):66. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/34698140/>
8. Suzuki H, Nishizawa T, Hibi T. Helicobacter pylori eradication therapy. Future Microbiol [Internet]. 2010 [citado 27/09/2022]; 5(4):639-48. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/20353303/>

9. Sharif Z, Mubashir M, Naqvi M, Atique H, Mahmood S, Ullah M. Randomized Clinical Trial on the Efficacy of Triple Therapy Versus Sequential Therapy in Helicobacter pylori Eradication. Cureus [Internet]. 2022 [citado 27/09/2022]; 14(5):e24897. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/35706754/>

10. Chimborazo Hidalgo EE. Determinar la eficacia de los métodos, Elisa en suero sanguíneo y la detección cualitativa del antígeno de Helicobacter pylori en heces fecales en los estudiantes de bioquímica y farmacia - ESPOCH. 2021 [citado 27/09/2022]; Disponible en: <http://dspace.esPOCH.edu.ec/handle/123456789/14760>

11. Colala Sánchez A de los Á, Flores Moreira HA. Caracterización clínica de la gastritis crónica por Helicobacter pylori en pacientes de 20 a 50 años que asisten al área de gastroenterología del Hospital Básico IESS de Durán. 2020 [citado 27/09/2022]; Disponible en: <http://repositorio.ucsg.edu.ec/handle/3317/14950>