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EPIDEMIOLOGICAL FEATURES OF H. PYLORI INFECTION IN BRAŞOV COUNTY

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Abstract: *Infection with H. pylori is involved in gastric and digestive intestinal human pathology, inducing over time (in decades) a chronic inflammation, lesions progressing from Atrophy, intestinal metaplasia, and adenocarcinoma.*
Aim: *Comparison of risk factors in three groups of people: the first including healthy patients, uninfected with the bacterium Helicobacter pylori and without any digestive disorder, the second group consists of patients with digestive disorders but not infected with Helicobacter pylori, and the third group consists of patients with digestive diseases in which the bacterium Helicobacter pylori was detected..*
The determinant and favored risk factors were: drinking water sources, means of transportation used most frequently, the presence in the family (within the same home) of a person infected with H. pylori.

Key words: *Helicobacter pylori, drinking water sources, means of transportation, the presence in the family of a person infected with H. pylori.*

1. Introduction

Infection with H. pylori is involved in gastric and digestive intestinal human pathology, inducing a chronic inflammation, lesions progressing from atrophy, intestinal metaplasia, and adenocarcinoma.

Studying this type of infection is important because it is responsible for 5.5% of all incident cancers as a result of Involvement in gastric carcinogenesis, but also because adenocarcinoma of the stomach is the second most lethal cancer worldwide.

From an epidemiologic point of view H. pylori infection evolves epidemic, even pandemic, 60% of the world population are carriers, 10% annually become infected with this bacterium, the prevalence in industrialized countries being between 20-40%.

In developing countries, the recurrence rate of H. pylori after a successful eradication is up to 42%, while in developed countries it is estimated to be less than 3%

Highlighting the epidemiological process factors of H. pylori infection contributes to improving preventive methods applied in the community, measures that if applied

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correctly are driving to reduce the number of cases of illness in time.

Gastro-duodenal mucus is frequently assaulted by many factors, the most frequently cited are: hiperclorhidria, use of aspirin, corticosteroids, dietary habits (spices, food temperature), excessive consumption of coffee, alcohol, smoking, along with more occupational factors, psycho-emotional. All these factors act through hormonal and hereditary mechanisms over mucosal lesions and are favoring the appearance of specific symptoms [1], [2], [3].

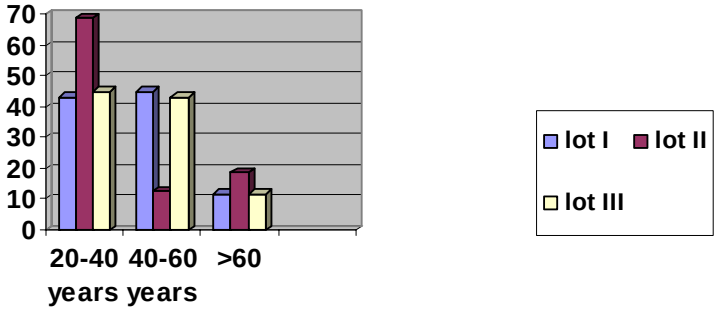
2. Materials and Methods

This descriptive study was conducted by completing a total of 154 questionnaires by participating persons; of these, 51 patients healthy, uninfected with the bacterium Helicobacter pylori and without any digestive disorders, 52 patients with digestive disorders but uninfected with the bacterium Helicobacter pylori and 51 patients with digestive diseases in which the presence of infection with the bacterium Helicobacter pylori was detected.

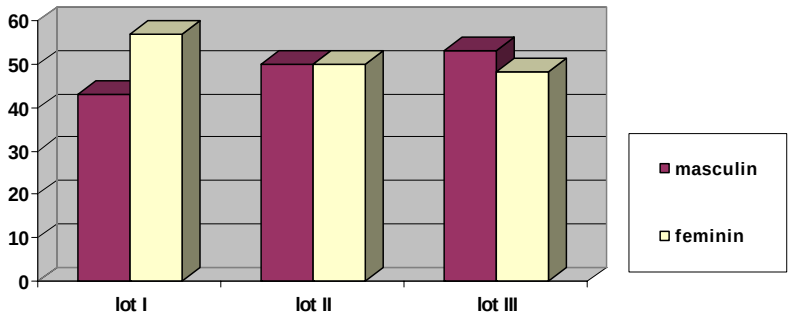
The selection of persons to establish the three groups was made before applying the questionnaire on the presence or absence of H. pylori infection (stressed by the test that shows the presence of antigen in feces) in conjunction with a diagnosis of digestive diseases (gastric ulcer, duodenal ulcer, gastritis and gastro-oesophageal reflux) by clinical examination and gastroscopy.

The three groups have the following structure:

-Age:



- Sex:



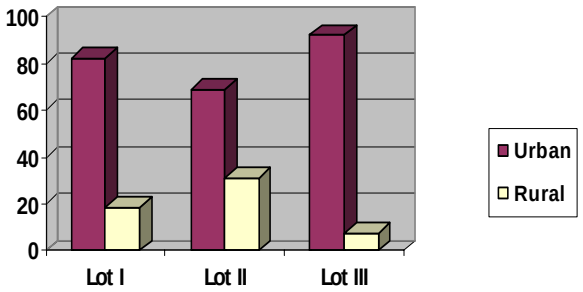
3. Results

In the final enrolment, 154 individuals, divided into three groups participated in the study, aged between 20-40 years. The minimum age was 20 years, on the basis of the protocol, and the maximum was 60 years. According to the place of residence in the last 10 years, this was the proportion of inhabitants of urban areas: in group I, 42 subjects (82.35%), 22 subjects (68.75%) in group II and 47 (92.95%) in group III.

The proportion of urban and rural recruits in this study was similar to that for the general population of the area, in which only 78% of the people reside in the city.

Table 1

Lot	Urban area	Rural area
I	42 pers (82.35%)	9 (18.65%)
II	32 (68.75%)	20 (31.25%)
III	47 (92.95%)	4 (7.85%)

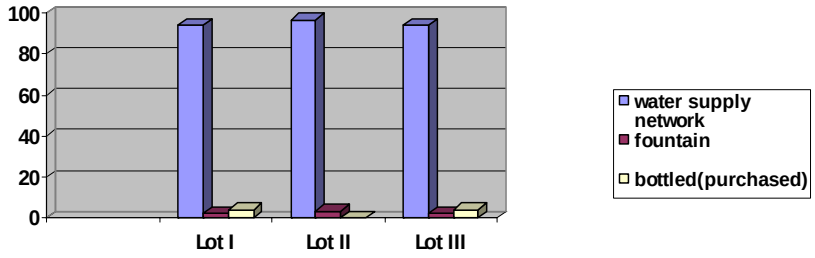


In terms of of the drinking water, results confirm that the 48 persons (94.11%) use water from the tap, 1 person (1.96%) from the fountain and 2 persons use purchased bottled water (3.93%) in lot I. Lot II includes 52 people (96.88%) that consume tap water and 1 person (3.12%) from the fountain.

In group III, 48 people (94.11%) use water from the tap, 1 person from the fountain (1.96), 2 people (3.93%) bottled water.

Table 2

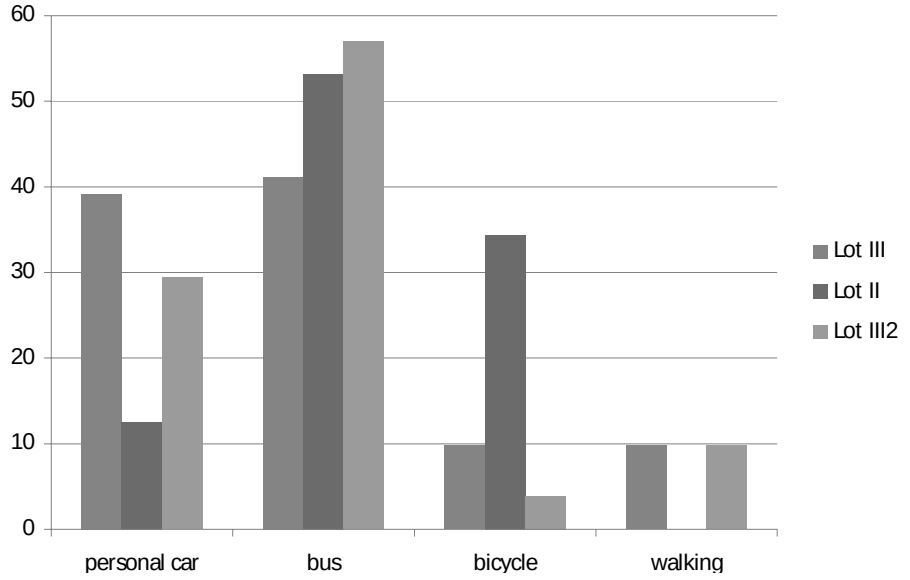
Water provenience	Lot I	Lot II	Lot III
Water supply network (tap)	48 pers (94.11%)	51 (96.88%)	48 (94.11%)
Fountain	1 (1.96%)	1 (3.12%)	1 (1.96%)
Bottled water (purchased)	2 (3.93%)		2 (3.93%)



Daily transportation of people to different destinations of the first lot is done at a rate of 39.21% by car and 41.17% by bus, and to a much lesser extent by bike or foot, compared with those of lot II who prefer bus 53.12% and bicycle 34.37%. The bus is the means of transportation most frequently mentioned by those in group III (57%), followed by personal car (29.41%), walking (9.8%) and cycling (3.9%).

Table 3

	Lot I	Lot II	Lot III
Personal car	20 people(39.21%)	4 (12.5%)	15 (29.41%)
Bus	21 (41.17%)	17 (53.12%)	29 (57%)
Bicycle	5 (9.8)	11 (34.37%)	2 (3.9%)
Walking	5 (9.8%)	0	5 (9.8%)



4. Discussion

Analyzing the answers from the people in the three groups regarding the source of drinking water, we notice a similarity in responses, the overwhelming majority using tap water, with a very small percentage of consumers in lot II using water from a fountain. Of course this type of water use by most respondents regardless of the group to which it belongs can only suggest further research in this area (on a greater number of people) to clarify issues related to water consumption.

Regarding the means of transportation most frequently used, data obtained from analyzing the results of questionnaires suggest in lot I (uninfected with H. pylori bacteria and without presenting any digestive disorder) a percentage equal sensible of people using personal car and bus compared with those in group II (persons in which various digestive disorders were present but H. pylori was absent) where the bus is preferably used, followed distantly by bicycle use. Using the bus is even more evident in the case of the lot III (people with digestive disorders in which the infection with Helicobacter pylori bacteria was detected). Walking is an option only for an extremely small percentage of people in lot I and half for those in lot III.

5. Conclusion

The risk factors studied in the three lots shows similarities related to water consumption from the public water supply network. Differences arise regarding the means of transportation used, the people belonging to lot II (with digestive disorders but not infected with H. pylori) and those in lot III (people with digestive disorders in which the infection with Helicobacter pylori bacteria was detected) use mainly the public transportation (by bus). Of course we also notice that walking is an option frequently used by people belonging to lot I compared with those in lot II.

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