

**EVALUATION OF
THE FOOD HABITS
OF PATIENTS WITH
GASTRITIS AND/OR
RELATED SYMPTOMS
ASSISTED AT A
NUTRITION CLINIC
ACCREDITED BY
THE UNITED HEALTH
SYSTEM**

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Abstract: **Introduction:** Gastritis is characterized by histological alterations of the gastric mucosa where an infiltrate of inflammatory cells is observed. This is the most common injury that affects the stomach. Inflammation can be acute or chronic, with the second form being more frequent. Gastric symptoms can be defined by a set of complaints related to the gastrointestinal tract such as heartburn, pain in the upper abdomen, nausea, vomiting, among others, whose onset or worsening may be related to several factors. Inadequate nutrition is one of the contributing factors for the development of gastritis or worsening of gastric symptoms, similar to the use of some medications, lifestyle and stress. **Method:** We evaluated the eating habits of patients diagnosed with gastritis and/or related symptoms who were treated at a nutrition clinic of the Unified Health System, through a retrospective review of the medical records of 133 patients from June 2011 to June 2016, which satisfied the inclusion and exclusion criteria. The 24-hour Food Recall and the Food Frequency Questionnaire were analyzed. **Results:** The most prevalent symptom was heartburn, present in 19.54% of patients aged 33 to 47 years. The comorbidity most frequently related to gastric discomfort was obesity, in patients aged 18 to 32 years, 20.1%. Regarding diet, most patients had habits classified as inadequate. The verified consumption pattern was sugars in 34.97%, fats in 23.3%, industrialized in 15, 73% and only 11.27% had their diet classified as adequate. It is possible to state that inadequate nutrition contributes to the development and/or maintenance of gastritis and related symptoms.

Keywords: Gastritis. Gastric symptoms. food habit.

INTRODUCTION

Gastritis is the most frequent pathological alteration that affects the stomach. Inflammation can be acute or chronic; the most frequent type being chronic bacterial gastritis, which is associated with infection by *Helicobacter pylori* (*H. pylori*). This is a Gram negative bacillus with a spiral shape (AGUIAR et al., 2002). In addition to *H. pylori*, there are several etiological factors that may be involved in the development of chronic gastritis such as inappropriate diet, smoking, alcoholism, medication, ingestion of corrosive substances, stress due to trauma, surgical procedures and even liver failure (MINCIS, 1997; VERGUEIRO et al., 2008) Dietary changes also generate dyspeptic symptoms such as gastric fullness, belching, heartburn, nausea and early satiety. These cause poor nutrition in these patients, which may lead to weight loss and, sometimes, malnutrition due to insufficient food (REIS, 2003). In addition, there are gastrointestinal diseases that manifest themselves with extra-intestinal signs and symptoms, which may appear before, without apparent symptoms or after the organ injury that constitutes the specific marker of the entity in question. Over the course of some diseases, manifestations of others associated with it may arise, understood, for example, as autoimmune and which must not be interpreted as different entities, but rather as part of the same pathology (VIEIRA; MONTEIRO; PARREIRA, 2007). It has already been demonstrated that a balanced diet rich in fruits, vegetables and antioxidants, such as vitamins C, E, carotenoids is related to the decrease of gastric damage (DDINE et al., 2012) there are gastrointestinal diseases that manifest themselves with extra-intestinal signs and symptoms, which may appear before, without apparent symptoms or after the organ injury that constitutes the specific marker of the entity in question. Over the course

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Nutrition is linked to longevity and aging and its importance has already been described by several authors who associate healthy eating with a quality life and an incorrect diet with chronic diseases such as hypertension, diabetes and obesity (BARBOSA, 2012).

Over time, the body has a reduced capacity to fight diseases and what can make a difference in this context is adequate food and nutritional intervention, which can postpone the onset and/or worsening of these diseases. A healthy diet can help the body to function properly. (BARBOSA, 2012).

METHOD

Descriptive, cross-sectional, population-based study with a qualitative and quantitative approach. It was carried out based on the evaluation of medical records of patients treated at the Nutrition Clinic of “Universidade de Ribeirão Preto”. Data were collected from 133 patients seen from June 2011 to June 2016, through a 24-hour recall

and Food Frequency Questionnaire. For inclusion in the research, the following criteria were considered: regardless of gender, race, education and religion, presenting a diagnosis of gastritis or having symptoms related to the gastrointestinal system, being attended at the Nutrition Clinic, being over 18 years of age, having correctly completed the medical record. Patients under the age of 18 years were excluded from the study, who were not seen at the Nutrition Clinic and incorrect filling out of the medical record. This work was registered on the Brazil Platform and forwarded to the Research Ethics Committee (CEP) number CAAE 62634916.3.0000.5498 with human beings at "Universidade de Ribeirão Preto", from which it received approval.

RESULTS

We verified that the minimum age of the research participants was 19 years old and the average 44.4 years old. The maximum age of participants was 80 years and the standard deviation over age was 14.3. The results obtained allowed us to assess that 85% of the studied population was female, this being understood due to a greater concern with body image and the control of associated pathologies.

Figure 1 quantifies the patients who reported having a diagnosis of gastritis or some symptom of gastric discomfort divided by age group. We verified that the most prevalent gastric symptom was heartburn in the age group of 33 to 47 years old, representing 19.54%. In relation to 18 to 32 years, 12.03%, from 48 to 62 years, 11.62% and the age group with the lowest prevalence of heartburn with 63 to 80 years; 7.51% of individuals. Regarding gastritis, it was more prevalent in patients aged 33 to 47 years, representing 5.26%. From 18 to 32 years old 3%. In the age group from 63 to 80 years old, 2.25%, and the age with the lowest prevalence of gastritis was from

48 to 62 years old, 1.5%. Vomiting was more prevalent in patients between 48 and 62 years old, 6.01%. In individuals aged 33 to 47 years, 4.51%. In patients aged 18 to 32 and 63 to 80 years, there was a small prevalence of 2.25%. Burning was more prevalent in patients aged 18 to 32 years and 33 to 47 years, representing 3.75% of the total. In patients between 48 and 62 years old there was a prevalence of 2.25% and in those between 63 and 80 years old only 0.75%. Heartburn was more prevalent in patients aged 18 to 32 years, 33 to 47 years and 48 to 62 years, totaling 2.25%. In patients aged 63 to 80 years, there was a small prevalence of 0.75%. Other minor symptoms were more prevalent in patients aged 18 to 32 years and 48 to 62 years with 1.5%. In the age group of 63 to 80 years there was a small prevalence of 0.75%. In patients between 33 and 47 years old, there was no individual with symptoms. Regarding the most prevalent symptom, it was found that 19% had heartburn. According to Ddine et al., (2012), in their research, 30% of patients who had the presence of *H. pylori* had the symptom of heartburn present.

Figure 2 quantifies the number of patients diagnosed with associated comorbidities divided by age group. We found that the most prevalent comorbidity in patients with gastric discomfort was obesity, being more present in patients aged 18 to 32 years with 20.1%, in patients aged 33 to 47 years it was 13.53%, in patients aged 48 to 62 years, 5.26%. And in patients aged 63 to 80 years only 2.25% of individuals. Hypertension was more prevalent in patients aged 48 to 62 years; 10.52%. In patients aged 33 to 47 years it represented 7.51%. In patients aged 63 to 80 years, 6.01%. And finally, in patients aged 18 to 32 years, only 1.5% of individuals. Type II diabetes was more prevalent in patients aged 33 to 47 years, representing 6.76%. In those from 48 to 62 years old and from 63 to 80 years old, it was 6.01% of the individuals. And in patients

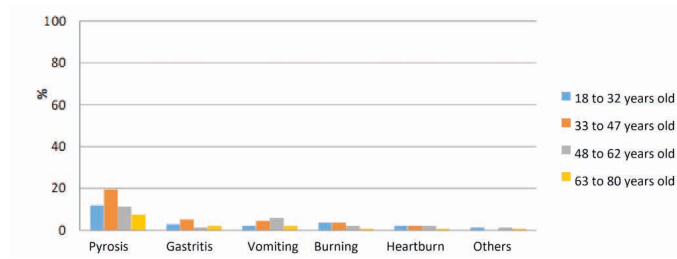


Figure 1- Percentage (%) of patients with Gastritis and related symptoms (n=133) by age group, treated at the Nutrition Clinic of “Universidade de Ribeirão Preto”, obtained through the analysis of medical records, Ribeirão Preto, 2018.

Source: The author himself

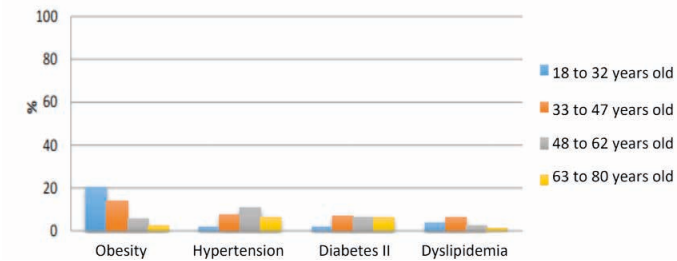


Figure 2- Prevalence (%) of comorbidities in patients (n= 133) by age group, treated at “Universidade de Ribeirão Preto” Nutrition Clinic, obtained through the analysis of medical records, Ribeirão Preto, 2018.

Source: The author himself

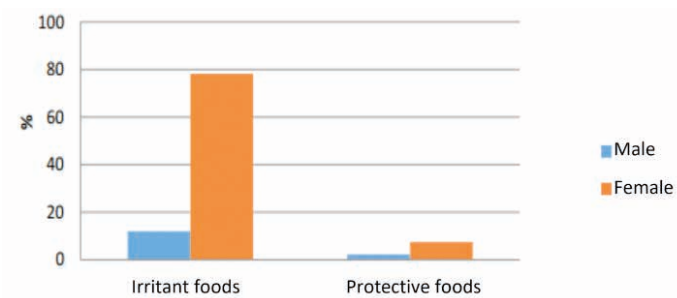


Figure 3- Percentage (%) of irritating and protective foods for the gastric mucosa in women (n=114) and men (n=19), attended at the Nutrition Clinic of “Universidade de Ribeirão Preto”, obtained through the analysis of medical records, Ribeirão Preto, 2018.

Source: The author himself

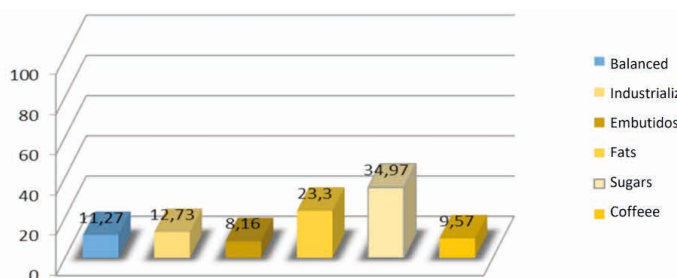


Figure 4: Prevalence (%) of foods consumed by patients with gastritis and related symptoms (n= 133), attended at the Clínica de Nutrição Universidade de Ribeirão Preto, obtained through the analysis of medical records, Ribeirão Preto, 2018.

Source: Own author

between 18 and 32 years old, only 1.5%. Dyslipidemia was more prevalent in patients aged 33 to 47 years; 6.01%. In individuals aged 18 to 32 years old 3.25%, 48 to 62 years old represented 2.25%. Differently, in patients aged 63 to 80 years, only 0.75%. According to Cardoso (2008), the importance of functional foods is essential, as the Brazilians are facing an increase in chronic diseases due to reasons such as an unbalanced lifestyle, incorrect eating habits and sedentary lifestyle. Regular consumption of these foods can contain the spread of these diseases and make people aware of how important the role of food is in their health. as the Brazilians are facing an increase in chronic diseases due to reasons such as an unbalanced lifestyle, incorrect eating habits and a sedentary lifestyle. Regular consumption of these foods can contain the spread of these diseases and make people aware of how important the role of food is in their health.

Figure 3 quantifies the distribution by gender of patients who consumed irritating and protective foods for the gastric mucosa divided by gender. We observed that the consumption of foods that irritate the gastric mucosa was more prevalent in women. There is a high consumption of foods rich in fat, fried foods, processed foods, sweets, cakes and soft drinks in general and a large consumption of coffee. 78.19% versus 12.03% in men. However, when comparing gastric mucosa protective foods, women consume more healthy foods - fruits, vegetables, foods rich in fiber, meat, milk and derivatives and the main groups of cereals. 7.51% versus

2.25% in men. Regarding protective foods for the gastric mucosa, only 11.27% of patients have adequate nutrition. According to Silva and Silva (2009), in their research,

Figure 4 quantifies the number of patients who consumed adequate food and inadequate food, separated by the main groups, including fat, sugar, sausages, processed products and coffee. It was verified in a comparative way where only 11.27% of the patients had a balanced diet with consumption of fruits, greens, vegetables, fibers and consumption of the main groups of cereals. On the other hand, 34.97% of patients had a high consumption of sweets, cakes, chocolates, soft drinks and sugar in general. A number of 23.3% of patients with consumption of foods rich in fat and fried foods, fatty meats, a lot of oil consumption in meals. There were 9.57% of patients consuming a large volume of coffee. In 8.16% of the patients, there was a high consumption of sausages. And in 12.73% of the patients consumption of processed foods. According to the study by Zanini et al., (2013) a high daily consumption of soft drinks, sweets and/or fried foods was found among adolescents. About 60% of the adolescents reported daily consumption of one of these products. Regarding irritating foods to the gastric mucosa, 80% of patients consumed this type of food and only 11.27% ingested adequate foods that protected the mucosa. According to an evaluation by Silva and Silva (2009), through the Food Frequency Questionnaire used and the 24-hour Recall, it was concluded that 70% of the patients ate foods that irritated the gastric mucosa. Regarding irritating foods to the gastric mucosa, 80% of patients consumed this type of food and only 11.27% ingested adequate foods that protected the mucosa. According to an evaluation by Silva and Silva (2009), through the Food Frequency Questionnaire used and the 24-hour Recall, it was concluded

that 70% of the patients ate foods that irritated the gastric mucosa. Regarding irritating foods to the gastric mucosa, 80% of patients consumed this type of food and only 11.27% ingested adequate foods that protected the mucosa. According to an evaluation by Silva and Silva (2009), through the Food Frequency Questionnaire used and the 24-hour Recall, it was concluded that 70% of the patients ate foods that irritated the gastric mucosa.

CONCLUSION

Through this study, we verified that the evaluated eating pattern was inadequate. Therefore, it is associated with the development of gastric symptoms. Gastritis, moreover, is related to several other factors such as: *H. pylori*, stress and medication use. The most common comorbidities present in patients

evaluated with gastritis and related symptoms were obesity and hypertension. The ingestion of foods that irritate the mucosa, for example: industrialized products, rich in sugars, fats and caffeine concentrates, according to the evaluation carried out, is common and certainly contributes to injuring the gastric mucosa, causing gastritis and/or related symptoms. The consumption of foods that protect the gastric mucosa is low in relation to irritants. However, in the study population, among women, the intake of this type of food was higher than among men. The presence of a nutritionist is essential in the evaluation and clinical follow-up together with the medical team, in order to guarantee the effectiveness of the treatment and the safety of the patient, thus promoting an improvement in their quality of life and success in the treatment.

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