

## PREVALENCE OF GASTRIC NON-INFECTIOUS DISEASES IN THE ELDERLY

## PREVALÊNCIA DE DOENÇAS GÁSTRICAS NÃO-INFECCIOSAS EM IDOSOS

## PREVALENCIA DE ENFERAS GÁSTRICAS NO INFECCIOSAS EN IDOSOS

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### ABSTRACT

**Objective:** to verify the non-infectious gastric diseases in the elderly of the support house Remanso da Paz, Quixadá-CE. **Method:** A cross-sectional, descriptive, cross-sectional, quantitative study was conducted by interview with six women in September 2016. **Results:** The elderly were women (66.6%), between 57 and 68 years of age, married (33.4%). Gastric diseases were evidenced with 54.5% of gastritis, 36.3% of esophageal reflux and 9.2% of esophagitis. There was no report of involvement and ingestion of alcoholic beverages, all subjects were sedentary. The drugs reported were: Omeprazole (37.5%), Pantoprazole (37.5%) and Domperidone (25%). The treatment time was seen with 4 (66.6%) years ago for more than 6 months. **Conclusion:** It is necessary to know the physicians' reality about the rational use of medicines, observing the changes and needs regarding drug therapy.

**Descriptors:** Proton Pump Inhibitors; Health of the Elderly; Use of Medications.

### RESUMO

**Objetivo:** verificar a prevalência de doenças gástricas não-infecciosas em idosos da casa de apoio Remanso da Paz, Quixadá-CE. **Método:** Tratou-se de um estudo do tipo observacional, descritivo, transversal, com abordagem quantitativa, realizado por entrevista com seis idosos em setembro de 2016. **Resultados:** Os idosos, eram em sua maioria, mulheres (66,6%), com faixa etária entre 57 a 68 anos de idade, casados (33,4%). Quanto as doenças gástricas foram evidenciadas que 54,5% apresentaram gastrite, 36,3% refluxo esofágico e 9,2% esofagite. Não houve relato de fumante e ingestão de bebidas alcoólicas, todos afirmaram ser sedentários. Os medicamentos relatados foram: Omeprazol (37,5%), Pantoprazol (37,5%) e Domperidona (25%). O tempo de tratamento foi visto que 4 (66,6%) afirmaram há mais de 6 meses. **Conclusão:** Faz-se necessário o conhecimento da realidade dos idosos sobre o uso racional de medicamentos, observando-se as dificuldades e necessidades em relação a terapia medicamentosa adequada em longo prazo.

**Descritores:** Inibidores da Bomba de Prótons; Saúde do Idoso; Uso de Medicamentos.

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## RESUMEN

**Objetivo:** verificar la prevalencia de enfermedades gástricas no infecciosas en ancianos de la casa de apoyo Remanso de la Paz, Quixadá-CE. **Método:** Se trató de un estudio del tipo observacional, descriptivo, transversal, con abordaje cuantitativo, realizado por entrevista con seis ancianos en septiembre de 2016. **Resultados:** Los ancianos, en su mayoría, eran mujeres (66,6%), entre 57 y 68 años de edad, casados (33,4%). En cuanto a las enfermedades gástricas fueron evidenciadas que 54,5% presentaron gastritis, 36,3% reflujo esofágico y 9,2% esofagitis. No hubo reportes de fumador e ingestión de bebidas alcohólicas, todos afirmaron ser sedentarios. Los medicamentos reportados fueron: Omeprazol (37,5%), Pantoprazol (37,5%) y Domperidona (25%). El tiempo de tratamiento fue visto que 4 (66,6%) afirmaron hace más de 6 meses. **Conclusión:** Se hace necesario el conocimiento de la realidad de los ancianos sobre el uso racional de medicamentos, observándose las dificultades y necesidades en relación a la terapia medicamentosa adecuada a largo plazo.

**Descriptor:** Inhibidores de la Bomba De protones; Salud del Anciano; Uso de Medicamentos.

## INTRODUCTION

Individuals aged 60 years or more have increased frequency of chronic-degenerative diseases, which control and prevention of sequelae often require the constant use of medicines. The increased use of medicines by the older adults occurs among the women, In those with worse perceived health, more frequency of chronic diseases and who use health services more.<sup>1</sup>

The consumption of drugs with medical guidance or by self-medication practice includes one of the evaluation criteria to the older adult in the Primary Health Care.

Therefore, this population tends to use more pharmaceutical products and present pharmacokinetic and pharmacodynamics characteristics that make them particularly vulnerable to adverse effects, requiring a continuous monitoring by the professionals.

And for the design of rational prescribing strategies of drugs among this age group further studies are essential to verify the prevalence of the use.<sup>2</sup>

The various chronic conditions are connected to the aging society, as well as lifestyle choices, such as smoking, alcoholism, risky sexual behavior, inappropriate eating habits and physical inactivity, besides genetic predisposition, since factors such as stress from daily activities increase the

number of older adults with high blood pressure, in addition to adopting unhealthy eating, influencing the weight and physical balance.<sup>3</sup>

In this sense, it is necessary the knowledge of the older adults' reality concerning the rational use of drugs, observing the difficulties and needs of this population in relation to the favorable state of health and its relation with the appropriate drug therapy. Thereby, observing the chronic gastric disorders in association with the quality of life parameters, benefiting the health status of the older adults, minimizing the existence of secondary diseases proposed in continuing education.

In search features predictive of an intensive health resources, that is, trying to identify risk factors associated the development of serious diseases, the study is to verify the prevalence of gastric diseases non-infectious in the home support elderly Backwater of Peace, Quixadá-CE, aiming propose measures of quality of life and thus promotes the health status of individuals.

## **METHODOLOGY**

It was an observational, descriptive, transverse study, consisting of a quantitative approach carried out in geriatric house - Remanso da Paz, in the municipality of Quixadá-CE. The philanthropic institution has 22 older adults receiving daily assistance of medical, physiotherapist, nutritionist, nurse, and general services by professionals, voluntarily. However, the study had a total of 6 participants who had gastric disorders at the moment of the research.

Data of interest were obtained at the time the older adults are in the place, through a questionnaire in which the sociodemographic profile of the aged was outlined, and the information about non-infectious gastric diseases and drugs used by them were collected. Through this interview it was observed the drugs prescribed and the ones used for the self-medication practice. Data were collected in September 2016.

Results were organized in a Microsoft Excel spreadsheet relating to the closed questions. The answers to the open questions were grouped into categories in accordance with their similarities. The results were analyzed in simple and absolute frequencies. The OpenEpi® program was used to check

significant differences. Statistical analyzes were performed by the Fisher's Exact Test, with significance at  $p < 0.05$ .

The study was submitted to the Ethics Committee of the Centro Universitário Católica de Quixadá, through Platform Brazil in order to be evaluated and approved in accordance with the Resolution 466/12 of the National Health Council through the Protocol n. 1,658,483, which regulates the guidelines and requirements of the research on human beings, following its determinations that are specificities of the researches with humans.

## RESULTS

From the individuals who attend the geriatric house, 16 (72.7%) were women and 6 (27.3%) men, and related

to the marital status, 12 (54.54%) were widowers, 4 (18.18%) single, 4 (18.18%) married and 2 (9.10%) separated. About education, 9 (40.90%) completed high school, 6 (27.3%) primary school, 6 (27.3%) are illiterate and 1 (4.5%) completed higher education. Regarding comorbidities, there was higher prevalence among subjects with hypertension (32%), gastric diseases (30%) and Diabetes mellitus (22%), mental disorders (12%) and bone disorders (4%).

The identification of the aged participating in the research, who had gastric diseases, is shown in Table 1. In Total 4 (66.6%) were women and 2 (33.4%) men, aged between 57 and 68 years old.

**Table 1:** Sociodemographic characteristics of the older adults studied, Quixadá (CE), 2016.

<b>Socioeconomic characteristics</b>		
<b>Marital status</b>	<b>Frequency</b>	<b>%</b>
Married	2	33,4%
<u>Widow/widowers</u>	<u>3</u>	<u>50%</u>
Separated	1	16,6%
<b>Education</b>	<b>Frequency</b>	<b>%</b>
Elementary school	1	16,6%
High school	2	33,4%
<u>Illiterate</u>	<u>3</u>	<u>50%</u>
<b>Family income</b>	<b>Frequency</b>	<b>%</b>
<u>1 wage</u>	<u>5</u>	<u>83,4%</u>
2 wages	1	16,6%
<b>Housing situation</b>	<b>Frequency</b>	<b>%</b>
Rented	2	33,4%
<u>Own</u>	<u>4</u>	<u>66,6%</u>

As gastric diseases, there was evidence that 6 (54.5%) had gastritis, 4 (36.3%) esophageal reflux and 1 (9.2%) esophagitis, since there were older adults with more than one disease. The report about the use of drugs by self-medication was accounted by all the aged adults, when they described the use of Omeprazole when feeling some abdominal discomfort.

Among the participants, there were no reports of any smoker, or the alcohol intake, as well as the absence of healthy eating; everyone stated to be sedentary. When asked if there are any medicine that causes some discomfort in the stomach three older adults answered positively, and of these, 2

(33.4%) reported it is caused by Nimesulide and 1 (16.6%) by Ibuprofen, both classified as non-steroidal anti-inflammatory drugs (NSAIDs). The use of medicine preparations for the relief of gastric symptoms was explained by 2 (33.4%) aged, listing the mint and lemon balm teas.

Medicines reported by the older adults through prescription are described in Table 2, since there was use of more than one medicine per aged.

**Table 2:** Drugs used for non-infectious gastric diseases studied by the elderly, Quixadá (CE), in 2016.

Medicines	Frequencies/ %	Therapeutic/ pharmacological class	Reason for use
<u>Omeprazole</u>	3 (37.5%)	Anti-ulcer drug/ Proton pump inhibitor	Gastritis
<u>Pantoprazole</u>	3 (37.5%)	Anti-ulcer drug/ Proton pump inhibitor	Gastritis
Domperidone	2 (25%)	Antiemetic/ D2 Dopamine receptor antagonists and gastrointestinal tract motility accelerator	Gastroesophageal reflux

The institution receive monthly medical care for the aged and with that, all of them reported that before twelve days from the interview, they had had a

medical appointment and had taken a new prescription. Concerning the treatment time, it was seen that four (66.6%) said they used the medicines for over 6 months and 2 (33.4%) more than a year.

## DISCUSSIONS

In the study of Silveira; Dalastra and Pagotto 4, the prevalence of polypharmacy was 28.0% (IC95% 23.1-32.5), being significantly higher in female gender (32.7%), presenting similarity with data of this research, and age group ranging from 75-79 years, classified as eutrophic and obese, in the presence of 2 and/or 3 chronic diseases and bad health self-evaluation. The average consumption of medicines was 3.7 ( $\pm$  2.4), with a maximum value of 12 medicines for every aged. The drug classes most used were: cardiovascular (49.2%) medications, alimentary tract and metabolism (18.0%) and central nervous system (12.2%).

The data presented in this study indicate that there was higher prevalence of females, a result that is repeated in other studies related to this topic.<sup>5</sup> The average of medications in use was 1.5 per user, with higher prevalence of married participants (33.4%), illiterate (50%), with 1 income wage (83.4%) and who live at their own home (66.6%).

Martins and Bonatto<sup>6</sup> conducted a retrospective study with review of

computerized database of the Endoscopy Service of Gastroclínica Cascavel, which included 103 patients with gastric polyps and divided into two groups - Group I: 54 patients users of PPIs for over a year; Group II: control group, 49 patients nonusers of PPIs. As in this study, from the total number of patients analyzed with gastric polyps, 24 were male and 79 female, with 11 men and 43 women in Group I and 13 men and 36 women in Group II. Hypergastrinemia was found in 28 patients, being 13 (24.07%) belonging to Group I and 15 (30.61%) to Group II, with no significant association being found between chronic use of PPIs and hypergastrinemia.

Schroeter et al.<sup>7</sup> also showed that among the 514 patients, 352 (68.5%) were female. Of these, 444 (86.4%) were taking one or more pharmacological agents while 70 (13.6%) did not use drug therapy. With respect to the total quantity of drugs used a mean of  $3.6 \pm 2.7$  was obtained for women, compared to  $2.6 \pm 2.3$  for men, not showing any significant difference ( $P > 0.05$ ).

Hipólito, Rocha e Oliveira<sup>8</sup> conducted a study with 349 patients, in

which the average prescription drugs per patients was 4.5 and the average age 64.6 years. The dose of 20mg was found in 69.8% of users, 84.3% have prescription of over six months, 29.5% of the patients had no record of the reason for the use of omeprazole and the reflux disease and gastric ulcer were the most cited indications, presenting similarity in the data of this study with gastritis 54.5% and esophageal reflux 36.3%.

Paz<sup>9</sup> observed in a casuistry of 240 participants, in which the average age was 56.6 + 12.8 years, ranging between 21 and 84 years, 139 (57.9%) were married, with divergence in the data of this study, which presented predominance of 50% widowers. Also, in comparison with the study of Paz<sup>6</sup>, data similar to this study were found in the income with 62 (25.8%) of wage-earning workers and 57 (23.8%) of retired people; however, 124 (51.7%) had incomplete primary school and twenty (8.3%) patients included in this study lived by themselves.

Menegassi et al. 10 included 22 subjects in their study, who underwent upper digestive endoscopy, electively, previously scheduled, with chronic use of proton pump inhibitors, from April to

October 2009. From the subjects included, 14 (63.6%) were female and in the age group of <60 years. All participants were in current use of proton pump inhibitors, and only three (13.6%) participants manipulated the medication. Twenty-one (95.4%) were using omeprazole and only one referred using pantoprazole. Data similar to this study that verified the high use of omeprazole (37.5% and pantoprazole (37.5%) therapeutically classified as proton pump inhibitors.

Of the total of 514 patients interviewed in the research of Schroeter et al., 13.2% used drugs for therapy of acid-peptic diseases. It was observed large presence of polypharmacy. Only 32.2% of the aged self-medicated; in contrast, 71.2% did not understand the prescription and 81.4% forgot to take the medicines frequently. The proton pump inhibitors were the subclass of drugs most used, being 43 (72.9%) the total of the patients who administered anti-ulcer drugs. Among these, 15 (25.4%) were using cimetidine and 1 (1.7%) ranitidine, presenting difference from this study, in which there was the use of domperidone 25% as receptor H2 antagonist.

According to Sohaili e Duggan<sup>11</sup> this class of drugs is in the list of medicines most prescribed in Australia by gastroenterologists. Information from the American pharmaceutical market shows that more than 12.4 billion dollars were spent in PPIs in the USA in 2003, being one of the drugs most consumed in this country in the recent years and are still prescribed in large proportions.<sup>12</sup>

Other drugs used by the aged in this study, both the D2 dopamine receptor antagonists and the gastrointestinal tract motility accelerator reduce the risk of duodenal ulcers in users of NSAIDs, but not gastric ulcers. The proton pump inhibitors are superior in producing healing of the active ulcers and in prevention of the recurrence of gastric and duodenal ulcers in case of continuous administration of NSAIDs.<sup>13</sup>

In the study of Hipólito, Rocha and Oliveira<sup>8</sup>, the reflux disease was the justification of use most described in the records, with higher prevalence in the female gender. The second indication of omeprazole use most prevalent was the gastric ulcer. The omeprazole dose most used in the treatment of gastric ulcer was 20mg per day for most of the patients; however, the time of the treatment, as well as in the gastroesophageal reflux disease

(GERD), was extended, with the majority of the patients taking omeprazole for more than a year. Time of omeprazole use in patients of this study was extended not only related to the treatment of gastric ulcer or GERD, but in the total population studied. Of the total of the patients, 26.6% used omeprazole for 2-5 years and 25.8% for more than 5 years, differing from the data of this study, with 66.6% who used the drugs for more than 6 months and 33.4% for more than a year.

Related to the time of the treatment of the older adults interviewed, it raises concern since they are medicines used in acute situations and their chronicity cause harmful effects to health. It is worth pointing out that these clinical conditions are preventable and that their management can be a result from dietary re-education and healthy habits of life.

Chen et al.<sup>14</sup> focused their studies in three possible effects due to the extended use of PPIs, highlighting the researches that have shown that the interaction between omeprazole, clopidogrel and Acetylsalicylic acid can reduce the antiplatelet effect of clopidogrel, consequently reducing the benefits related to the prevention of the cardiovascular events, and increase the risks for cardiovascular ischemic accidents. However, in vitro results and the inconsistency among the studies do



not suggest that this interaction is clinically relevant.

Still, according to the authors, the use of PPIs is related to the increased osteoporotic and non-osteoporotic fractures, studies show that the occurrence of falls is related to the time of use and dose. The mechanism for this increase of falls is associated with the decrease of calcium absorption due to changes in the secretion of gastric acid, presenting as the most part of calcium is in the form of water insoluble salts and as the calcium solubility depends on the acidity, the calcium dissolution and absorption is impaired because of the increase in gastric pH.<sup>14</sup> According to Brasil<sup>15</sup>, PPIs can lead to raise the risk of spine, wrist and total fractures in postmenopausal women.

Schroeter et al.<sup>7</sup> analyzed that 59 patients, when are sick, 40 (67.8%) look for their doctor and 19 (32.2%) use medicines they have at home, characterizing self-medication. Also, results showed that 42 (71.2%) did not understand the prescription. When questioned about forgetting to take the anti-ulcer drugs, 48 (81.4%) reported they frequently forget to take them.

This study has limitations related to the short period of time and sample size, as a consequence of the number of older adults who attend the institution, besides the absence of evaluation of medical prescriptions, pointing out that it was carried out through the collection of information, involving the memory of the participants, what can lead to data subjectivity, since recalling past facts, to a certain extent, cannot totally correspond to reality.

## CONCLUSIONS

This study has highlighted the predominance of female PPIs medicine users, presenting gastritis with time of treatment of more than six months.

In this sense, it is necessary the knowledge of the older adults reality about the rational use of medicines, observing the difficulties and needs of this population considering the favorable health status and its relation with the appropriate drug therapy. With that in mind, observing the chronicle pathologies in association with the parameters of quality of life, benefiting the aged health status, minimizing the existence of secondary diseases proposed by the continuing education. In addition, it was seen that the use of

PPIs is influenced by the absence of a healthy eating, as well as the use of NSAIDs.

In search for predictive characteristics of an intensive use of health resources, that is, in an effort to identify the risk factors associated with

the development of severe diseases, it is highlighted the importance of identifying the pathologies of chronicle character that affect the aging population, aiming to propose measures of quality of life and, then, favors the individuals' health status.

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