

Short Communication

Prevalence of Normal Endoscopic Findings in Women with Dyspeptic Symptoms in a Brazilian Community

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Abstract

Aim: To establish the prevalence of normal endoscopic findings and its association with dyspeptic symptoms in female patients submitted to esophagogastroduodenoscopy (ED)

Methods: We evaluated retrospectively the prevalence of positive and negative endoscopic findings in the population of women, from the age of 20, with dyspeptic symptoms, submitted to esophagogastroduodenoscopy (ED).

Results: A total of 1651 patients underwent ED. Of these 864, 51 men and 813 women had dyspeptic symptoms as an indication for endoscopy. In the two groups 27 men and 416 women had normal endoscopy, which corresponded to 52, 9% and 81,3% respectively of the endoscopy performed in patients with dyspeptic symptoms.

Conclusion: In the present study, we observed that the number the patients submitted to endoscopic procedures (ED) are women and the prevalence of dyspeptic symptoms and percentual of normal esofagogastroduodenoscopy was also significantly higher in women than in men. Our results suggest that the phenomenon of visceral hypersensitivity identified in most of the patients with FGDI 22-24 could be also associated to differences to the effects of female hormones.

INTRODUCTION

Digestive symptoms such as epigastric pain, epigastric burning, postprandial fullness and early satiety are common in the general population. Dyspeptic symptoms may be associated with pathologies with negative endoscopic findings such as functional gastroduodenal disorders, or organic lesions such as peptic ulcers, gastritis, and neoplasias, which are easily identified at endoscopy [1-6]. However, dyspepsia is like a umbrella and can be considered more a symptom complex rather than a effective diagnosis [7]. Since the 1980s the Rome Criteria have been used as a tool for the diagnosis of functional digestive diseases in daily clinical practice, including dyspepsia [8]. About three-quarters of patients with dyspepsia undergoing upper gastrointestinal endoscopy investigation are labeled with the diagnosis of functional dyspepsia without a detectable cause [4,5]. The latter group is classified within the concept of functional gastrointestinal tract disease (FGID). Today this concept has been updated as disorders of gut-brain interaction (DGBI) [9-11]. Although the diagnosis of dyspepsia does not affect life expectancy, the impact on quality of life is substantial and many questions remain open regarding this clinical entity. Different studies have identified different risks factors for dyspepsia like non-steroidal inflammatory drug use, H. pylory,

smoking and female gender. Up to one in five individuals report dyspepsia in the community and the prevalence is significantly higher in women [4,6]. The female sex has also been associated with a higher prevalence of functional digestive diseases. These differences can be attributed to the effects of female hormones, since estrogen and progesterone receptors are present along the gastrointestinal tract and the fluctuation of these hormones during the menstrual cycle, gestation and the perimenopause can influence the digestive functions [12-19]. However, despite growing evidence of these differences, most medical professionals continue to ignore them in daily clinical practice. The consequence is less diagnostic accuracy and consequently the less effective therapeutic management of DFTGI.

AIM

To establish the prevalence of normal endoscopic findings and its association with dyspeptic symptoms in female patients, from the age of 20 years, submitted to upper digestive endoscopy at the Hospital University Antonio Pedro HUAP –Niteroi-Rio de Janeiro –Brazil.

METHODS

We evaluated retrospectively the prevalence of positive and negative endoscopic findings in the population of women,

Table 1: Percentual of normal esofagogastroduodenoscopy (ED) in patients with dyspeptic symptoms.

	Male (n=193)	Female (n=1458)	P
DYSPEPTIC SYMPTOMS	51 (26,42%)	813 (55,76%)	P<0.01*
NORMAL ENDOSCOPIES	27(52,94%)	416 (51,2% %)	P>0.05*

*P value < 0.05 was considered statistical significance.

from the age of 20, with dyspeptic symptoms, submitted to esophagogastroduodenoscopy (ED) at HUAP -Federal Fluminense University, from March 2007 to March 2010. The data evaluated were: age, dyspeptic symptoms (epigastric pain, epigastric burning, postprandial fullness, early satiety, dyspepsia / Dyspeptic syndrome). Data related to dyspepsia were chosen according to the ROME III criteria [8]. The endoscopic findings (gastric and duodenal peptic ulcer, gastric cancer, energetic and erosive gastritis, gastric mucosal atrophy, normal examination and others. Inclusion criteria: women > 20 years of age, who have investigated dyspepsia as a clinical indication for upper digestive endoscopy.

Exclusion criteria

Women in endoscopic therapeutic programs, endoscopic urgencies such as HDA, organic diseases of the upper or systemic digestive tract previously diagnosed, records of reports and incomplete examinations. The study was approved by the institutional review board at Federal Fluminense Faculty of Medicine - HUAP and local Ethical Committee: number CAAE09803413.0.0000.5243.

Statistical analysis

Data are expressed as frequency or mean with SD. Normally distributed data were analyzed by the t test, and categorical data were analyzed by the χ^2 test. A P value < 0.05 was considered to indicate statistical significance.

RESULTS

A total of 1651 patients underwent ED. Of these 864, 51 men and 813 women, had dyspeptic symptoms as an indication for endoscopy. In the two groups 27 men and 416 women had normal endoscopy, which corresponded to 52,9% and 51.2% respectively of the endoscopy performed in patients with dyspeptic symptoms. The mean age of patients undergoing ED with dyspepsia as a clinical indication was 56.15 years (\pm 16.02) for men and 51.04 years (\pm 13.12) for women respectively. No significant differences were found between the mean ages of the two groups (men and women) studied $P > 0,05$ (Table 1).

DISCUSSION AND CONCLUSION

Dyspepsia is the most common upper gastrointestinal condition with a worldwide prevalence [5]. However few studies have investigated the relationship between gender and dyspepsia in the general population [4-6]. In the present study, we observed that the number the patients submitted to ED women were undergoing endoscopic procedures (ED) more frequently than men. Do women pay more attention to clinical symptoms? They looking for more medical care services? The

prevalence of dyspeptic symptoms as a clinical indication for esofagogastroduodenoscopy was significantly higher in women when compared to men (55,76% vs 26,42%)%, $P < 0.01$). Studies of individual dyspeptic symptoms have demonstrated sex-related differences in prevalence, as well as in gastric emptying and visceral sensitivity [13-15]. The female sex has also been associated with a higher prevalence of functional digestive diseases [4-6,16-20]. The mechanisms involved in the pathophysiological alterations found in FGID seem to be multiple and are still uncertain [9-11,20,21]. A unifying hypothesis for the more frequent generation of these symptoms in women could be the phenomenon of visceral hypersensitivity identified in most of the patients with FGDI [22-24] associated to differences to the effects of female hormones, since estrogen and progesterone receptors are present along the gastrointestinal tract [12-14]. Our results reinforce that the mechanisms of digestive symptoms are multifactorial and the new concept of disorders of gut-brain interaction (DGBI) [7,9-11]. The present study also offers provide direct information on the percentage of normal ED in patients with dyspepsia and information about the prevalence of dyspepsia in a Brazilian urban region. In order to increase the effectiveness and lower cost of the clinical-therapeutic approach of these patients, we consider it fundamental to disseminate these concepts and stimulate scientific research in this area.

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