Assessment of cases of gastro-esophageal reflux disease

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Abstract

Background: Gastroesophageal reflux disease is considered a common disease in the general population of Western countries. The present study was conducted to assess the risk factors of GERD in patients.

Materials and methods: The present study was conducted on 216 patients. A questionnaire was designed and all the subjects were advised to respond to it. Data such as type of analgesics used, number of meals per day, most types of food, most types of drinks, smoking, family history of GERD was recorded.

Results: Out of 216 patients, males were 102 and females were 114. The risk factors were spicy food in 167, tea use 180, more than 3 meals a day in 57, analgesic use in 45, salt use 128 and intake of fiber free diet in 157 patients. The difference was significant ($P < 0.05$).

Conclusion: Authors found that the risk factors for GERD was spicy food, tea use, more than 3 meals a day, analgesic use, salt use and intake of fiber free diet.

Keywords: Analgesic, fiber, gastroesophageal reflux disease

Introduction

Gastroesophageal reflux disease (GERD) is considered a common disease in the general population of Western countries. GERD affects up to 44% of the US population at least once a month and roughly 20% once a week \[^1\]. There is also a large economic burden associated with GERD \[^1\]. Worldwide, gastroesophageal reflux disease (GERD) affects a large number of people and is a major burden on health care systems because of the high number of consultations it generates, the costs of medicines, the reduction of quality of life and its impact on labor productivity \[^2\]. Risk factors for GERD include older age, excessive body mass index (BMI), smoking, anxiety/depression, and less physical activity at work. Eating habits may also contribute to GERD, including the acidity of food, as well as size and timing of meals, particularly with respect to sleep. Recreational physical activity appears to be protective, except when performed post-prandially \[^3\].

Gastroesophageal reflux is primarily a disorder of the lower esophageal sphincter (LES) but there are several factors that may contribute to its development. The factors influencing GERD are both physiologic and pathologic. The most common cause is transient lower esophageal sphincter relaxations (TLESRs). TLESRs are brief moments of lower esophageal sphincter tone inhibition that are independent of a swallow \[^4\]. The present study was conducted to assess the risk factors of GERD in patients.

Materials & Methods

The present study was conducted on 216 patients of both genders. All were informed regarding the study and written consent was obtained. Ethical clearance was taken from institutional ethical committee.

General information such as name, age, gender etc. was recorded. A questionnaire was designed and all the subjects were advised to respond to it. It comprised of information pertaining to physical activities frequency, type of analgesics used, number of meals per day, most types of food, most types of drinks, smoking, family history of GERD. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.
Results

Table 1: Distribution of patients

| Gender       | Males | Females |
|--------------|-------|---------|
| Number       | 102   | 114     |

Table 1 graph 1 shows that out of 216 patients, males were 102 and females were 114.

Graph 1: Distribution of patients

Table 2: Risk factors of GERD

| Risk factors       | Number | P value |
|--------------------|--------|---------|
| Spicy food         | 167    | 0.05    |
| Meal > 3 times a day| 57     |         |
| Tea                | 180    |         |
| Analgesic use      | 45     |         |
| Salt               | 128    |         |
| Non fiber diet     | 157    |         |

Table 2, graph 2 shows that risk factors were spicy food in 167, tea use 180, more than 3 meals a day in 57, analgesic use in 45, salt use 128 and intake of fiber free diet in 157 patients. The difference was significant (P< 0.05).

Graph 2: Risk factors of GERD

Discussion

The classic and most common symptom of GERD is heartburn. Heartburn is a burning sensation in the chest, radiating toward the mouth, as a result of acid reflux into the esophagus [3]. However, only a small percentage of reflux events are symptomatic. Heartburn is also often associated with a sour taste in the back of the mouth with or without regurgitation of the refluxate. Notably, GERD is a common cause of non-cardiac chest pain [6]. It is important to distinguish between the underlying cause of the chest pain because of the potentially serious implications of cardiac chest pain and varied diagnostic and treatment algorithms based on etiology. A good clinical history may elicit GERD symptoms in patients with non-cardiac chest pain pointing to GERD as a potential etiology [7]. The present study was conducted to assess the risk factors of GERD in patients. In this study, out of 216 patients, males were 102 and females were 114. David et al. [8], found that the overall estimated prevalence of reflux was 11.98%. For symptoms evaluated with GERD-Q, the estimated prevalence were heartburn 13.6%, regurgitation 16.9%, epigastralgia 16.67%, nausea 11.4%, difficulty sleeping due to heartburn or regurgitation, 8.17% and consumption of medications additional to those formulated by the physician 6.68%. Women living in Barranquilla or Medellin, had statistically significant levels of comorbidities associated with reflux. We observed that risk factors were spicy food in 167, tea use 180, more than 3 meals a day in 57, analgesic use in 45, salt use 128 and intake of fiber free diet in 157 patients. Ali et al. [9] determined the prevalence and risk factors for gastroesophageal reflux disease in a population of Nigerian medical students. The Carlsson-Dent questionnaire was administered to medical students in the clinical phase of their training at the University of Nigeria, Enugu Campus. Some putative risk factors for gastroesophageal reflux disease were also included in the questionnaire. The prevalence of gastroesophageal reflux disease was 26.34%. There was an association between the use of caffeine-containing substances (coffee and kola nuts) and the prevalence of gastroesophageal reflux disease (odds ratio = 2.2 and 2.015, respectively).

The use of antibiotics for the eradication of Helicobacter pylori (H. pylori) related gastroduodenal disorders became widespread in Nigeria about 15 years ago with the result that many dyspeptic patients are rightly or wrongly placed on this treatment. Drugs for the eradication of H. pylori are administered indiscriminately because there are no guidelines for the use of these drugs and even where the guidelines exist; they are not followed properly because of constraints of poor laboratory support. It is possible that such widespread use of drugs for H. pylori eradication may be attended by a rise in the prevalence of GERD and its complications [10].

Conclusion

Authors found that the risk factors for GERD was spicy food, tea use, more than 3 meals a day, analgesic use, salt use and intake of fiber free diet.

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