



Original Article

Differences of risk factors and clinical presentations in male and female Taiwanese individuals with Barrett's esophagus

Shou-Wu Lee^{a,b,*}, Han-Chung Lien^{a,c}, Chi-Sen Chang^{a,b}, Chung-Hsin Chang^a,
Chung-Wang Ko^{a,c}, Hong-Zen Yeh^{a,c}

^a Division of Gastroenterology, Department of Internal Medicine, Taichung Veterans General Hospital, Taichung, Taiwan, ROC

^b Department of Internal Medicine, Chung Shan Medical University, Taichung, Taiwan, ROC

^c Department of Internal Medicine, Yang-Ming University, Taipei, Taiwan, ROC

Received November 9, 2017; accepted December 3, 2017

Abstract

Background: Barrett's esophagus (BE) is a disorder more often found in obese men. Differences between the two genders are not known in the Asian countries. Here, we studied their gender differences in the Taiwanese population in terms of risk factors and clinical presentations.

Methods: Data from Taichung Veteran General Hospital were prospectively collected during an approximately two year-period (October 2012 to December 2014). Patients all underwent endoscopic surveillance, and BE was diagnosed based on the typical pattern of intestinal metaplasia. The patient characteristics were compared between the two genders.

Results: We enrolled 152 BE patients: 103 men and 49 women. We found in the males, when compared with the females, significantly older mean age, higher waist circumference, greater BMI (ratio of obesity BMI ≥ 25 kg/m²), and more cases with dyslipidemia and hiatus hernia. Long-segment BE and high-grade dysplasia/adenocarcinoma appeared only in males. Self-reported reflux symptoms were noted 80.6% in men and 89.8% in women. In those with dysplastic BE, we found these patients having higher ratios of obesity, hiatus hernia, alcohol drinking, cigarette smoking and reflux symptom.

Conclusion: Gender differences were found in our BE patients, males were older in age, more obese, and suffered more serious signs from BE in terms of both endoscopic and pathologic presentations.

Copyright © 2018, the Chinese Medical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Keywords: Barrett's esophagus; Endoscopic; Gender

1. Introduction

Barrett's esophagus (BE) is a disorder defined as an abnormal transformation of the squamous epithelium (viz., intestinal metaplasia, IM), and is considered as a complication of gastroesophageal reflux disease (GERD).¹ Recently, interest in BE has grown due to its likely progression to esophageal adenocarcinoma (EAC), with elevated risk 30–40 times

higher than that of the general population.^{1,2} Symptoms of GERD, such as heartburn or regurgitation, are associated with the increased risk of BE or EAC.^{3–5} However, some patients of BE or EAC report no history of GERD.³ Traditionally, in the Western countries, BE is often found in male and obese individuals⁶ but similar findings in the Asian countries are lacking. The aim of this study is therefore to determine the gender differences of BE in the Taiwanese population in terms of risk factors and clinical presentations.

2. Methods

We prospectively analyzed clinical data collected from subjects with BE at the Medical Screening Center at Taichung

Conflicts of interest: The authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

* Corresponding author. Dr. Shou-Wu Lee, Division of Gastroenterology, Department of Internal Medicine, Taichung Veterans General Hospital, 1650, Taiwan Boulevard, Section 4, Taichung 407, Taiwan, ROC.

E-mail address: ericest@vghtc.gov.tw (S.-W. Lee).

<https://doi.org/10.1016/j.jcma.2017.12.007>

1726-4901/Copyright © 2018, the Chinese Medical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article in press as: Lee S-W, et al., Differences of risk factors and clinical presentations in male and female Taiwanese individuals with Barrett's esophagus, Journal of the Chinese Medical Association (2018), <https://doi.org/10.1016/j.jcma.2017.12.007>

Table 1
The demographic data of enrolled individuals with Barrett's esophagus.

| | Male (N = 103, 67.8%) | | | Female (N = 49, 32.3%) | | | p |
|--------------------------|-----------------------|----|---------|------------------------|----|---------|--------------------|
| | M ± SD | N | % | M ± SD | N | % | |
| Age (years) | 61.67 ± 15.27 | | | 55.48 ± 14.27 | | | 0.019 ^b |
| Waist (cm) | 91.49 ± 8.41 | | | 81.63 ± 9.32 | | | 0.001 ^b |
| BMI (kg/m ²) | 24.72 ± 3.12 | | | 23.65 ± 4.42 | | | 0.132 ^b |
| Obesity ^c | | 62 | (60.2%) | | 16 | (32.7%) | 0.001 ^a |
| Cholesterol (mg/dl) | 184.77 ± 69.79 | | | 200.42 ± 60.61 | | | 0.017 ^b |
| TG (mg/dl) | 135.76 ± 69.79 | | | 92.05 ± 60.61 | | | 0.001 ^b |
| HDL (mg/dl) | 52.28 ± 13.28 | | | 66.56 ± 17.77 | | | 0.001 ^b |

p-values were analyzed with Pearson's Chi-square test^a; independent t test^b.

BMI = body mass index; HDL = high density lipoproteins; TG = triglyceride; N = numbers.

^c Definition of obesity: BMI ≥ 25 kg/m².

Veteran General Hospital during the period from October 2012 to December 2014. This study was approved by Institutional Review Board of the Taichung Veterans General Hospital (No. CF14040). The general data of patients included age, gender, body weight, body mass index (BMI), and waist circumference. Lipid profiles of the following items: cholesterol, triglyceride (TG), and high density lipoproteins (HDL), were also recorded. All patients underwent an open-access trans-oral upper gastrointestinal (UGI) endoscopy. Specifically, white light and narrow band imaging (NBI) were used in the high-resolution endoscopy and four-quarter tissue biopsy was taken in accordance with the AGA recommendations. BE was diagnosed by the typical IM pattern. We also collected the endoscopic findings, that included hiatus hernia, erosive esophagitis (EE), short segment BE (SSBE, extend <3 cm into the esophagus) or long segment BE (LSBE, extend ≥ 3 cm into the esophagus), and pathologic appearance of BE tissue, such as low- and high-grade dysplasia (LGD and HGD) or EAC. Exclusion criteria were total esophagectomy, severe cardiopulmonary deficiency, malignancy, or other conditions unsuitable for UGI endoscopy.

All patients were asked to complete a questionnaire on lifestyle habits and reflux symptoms. The lifestyle habits included drinking of alcohol, tea or coffee, and cigarette smoking. The positive of lifestyle habits were defined as ongoing consumption of a particular item in excess of one day in a week. Reflux presentation referred to typical symptoms like acid regurgitation, heartburn or chest pain, and atypical symptoms like sore throat, lump sensation or chronic cough. A positive symptom was defined as one that occurred in excess of twice in a week. Patients were divided into one of two groups according to their gender. Their characteristics were subsequently compared.

For each of the measured parameters, data were expressed as mean and standard deviation. Hiatus hernia, endoscopic and pathologic findings of BE tissue, lifestyle habits and presentation of reflux symptom of each stratified group, were expressed as the percentage of total patient numbers of the respective groups. Statistical comparisons were made using Pearson's chi-square test to compare the effects of gender and positive ratios of the stratified groups. Independent t-test was used to analyze age, BMI, waist circumference and lipid profiles. p-values <0.05 were considered statistically significant.

3. Results

Among the 152 enrolled subjects, 103 were men (67.8%) and 49 were women (32.2%). The general data and lipid profiles are shown in Table 1. The male group, in comparison with the female, was found to have significantly older ages (mean 61.67 vs. 55.48 years, $p = 0.019$), larger waist circumferences (mean 91.49 vs. 81.63 cm, $p = 0.001$), and more classified with obesity (BMI ≥ 25 kg/m²) (60.2% vs. 32.7%, $p = 0.001$). Men compared with women, also had higher levels of TG (mean 135.76 vs. 92.05, $p = 0.001$) and lower levels of HDL (mean 52.28 vs. 66.56, $p = 0.001$), Cholesterol levels were similar across gender.

Some subjects received anti-secretory medications, such as proton pump inhibitors (PPIs) or histamine-2 receptor antagonists (H2RAs). In the male group, 55 (53.4%) took PPIs, and 9 (8.7%) took H2RAs. In the female group, 27 (55.1%) took PPIs and 4 (8.2%) took H2RAs.

The endoscopic and pathologic appearances of BE of these two groups are shown in Table 2. The male group had a higher

Table 2
The endoscopic, pathologic appearance and lifestyle habits of men and women with Barrett's esophagus.

| | Male (N = 103, 67.8%) | | Female (N = 49, 32.3%) | | p-value |
|---------------------|-----------------------|---------|------------------------|---------|---------|
| | N | % | N | % | |
| Hiatal hernia | 47 | (45.6%) | 12 | (24.5%) | 0.012 |
| BE length | | | | | 0.031 |
| SSBE | 93 | (90.3%) | 49 | (100%) | |
| LSBE | 10 | (9.7%) | 0 | | |
| Pathologic findings | | | | | 0.514 |
| No dysplasia | 97 | (94.2%) | 46 | (93.9%) | |
| LGD | 3 | (2.9%) | 3 | (6.1%) | |
| HGD | 1 | (1.0%) | 0 | | |
| EAC | 2 | (1.9%) | 0 | | |
| Lifestyle habits | | | | | |
| Alcohol | 18 | (17.5%) | 7 | (14.3%) | 0.884 |
| Tea | 40 | (40.8%) | 12 | (25.5%) | 0.072 |
| Coffee | 36 | (35.0%) | 19 | (38.8%) | 0.647 |
| Smoking | 19 | (18.6%) | 6 | (12.2%) | 0.609 |

All p-values were analyzed with Pearson's Chi-square test.

BE = Barrett's esophagitis; EAC = esophageal adenocarcinoma; HGD = high grade dysplasia; LGD = low grade dysplasia; LSBE = long segment Barrett's esophagus; N = numbers; SSBE = short segment Barrett's esophagus.

Download English Version:

<https://daneshyari.com/en/article/10218844>

Download Persian Version:

<https://daneshyari.com/article/10218844>

[Daneshyari.com](https://daneshyari.com)