



## PREVALENCE OF HIATAL HERNIA AMONG DYSPEPSIA PATIENTS -STUDY CONDUCTED AT TEACHING HOSPITAL BATTICALOA, SRILANKA

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### ABSTRACT

Dyspepsia is common in medical and surgical practice that is reported by up to 40% of the general population. It defines an upper gastrointestinal symptom complex characterized by the spectrum of symptoms. However, in one point patient needed endoscopic examination. It is obvious that relations between a hiatal hernia and reflux oesophagitis both significantly played the etiology of dyspeptic symptoms. We would like to study the prevalence of a hiatal hernia among dyspeptic patients in Batticaloa, SriLanka. The descriptive prospective study was conducted in Teaching Hospital Batticaloa, SriLanka from the period of April 2015 to April 2016 in which 95 patient were selected. Complain of dyspeptic symptoms are more common in female 59(62.1%) than male 36(37.9%). In our study, dyspeptic symptoms are more common 44(46.3%) among the age group of more than 50 years-old. The prevalence of a hiatal hernia was seen in 48(50.52%) cases. In the future high sensitive manometry should be a promising method for assessing the association between a hiatus hernia and gastroesophageal reflux disease.

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### INTRODUCTION

The dyspepsia symptom is a sensation of pain or discomfort in the abdomen. The term of dyspepsia is derived from Greek word and it means "bad digestion"(1). It could be also described as indigestion, gassiness, early satiety, postprandial fullness, gnawing or burning epigastric region. Many of the patients have underlying pathology, it could be in the stomach or duodenum or pyloric dysfunction or helicobacter pylori infection or lactose deficiency. This is a chronic condition, which lasts for at least three months. However, non-ulcer (functional) dyspepsia is an emerging problem in the clinical practice which defined as dyspeptic symptoms in a patient who has no abnormalities on physical examination and upper gastrointestinal endoscopy(2). It can recur several times. A community-based study conducted by Zagari *et al*, which revealed that one-third of the dyspeptic patients do not show any abnormalities in the endoscopic findings(3). Peptic ulcer disease forms painful and burning or ulcers in the epithelial lining of the stomach or part of the small intestine. The common causes of the PUD are Helicobacter pylori and use of painkillers especially non-steroid anti-inflammatory drugs(4). Common symptoms of the PUD include epigastric discomfort, loss of appetite and weight loss. A hiatal hernia is a condition in which the upper part of the stomach bulges through an opening in the diaphragm. The leaking of acid from the stomach in the esophagus is responsible for the dyspeptic symptoms, this condition is called gastroesophageal reflux

disease (GERD)(5).It can be diagnosed radiographically or endoscopically. Gastroesophageal reflux disease responsible for 25% of dyspeptic symptoms(6). The purpose of this study is to see the prevalence of a hiatal hernia among dyspeptic patients at Teaching Hospital Batticaloa, SriLanka. As many studies have been demonstrated that a hiatal hernia is closely related to reflux symptoms, reflux oesophagitis, Barrett's esophagus and esophageal adenocarcinoma.

### METHODOLOGY

This descriptive prospective study was conducted in Teaching Hospital Batticaloa, SriLanka from the period of April 2015 to April 2016 in which 95 patient were selected. We explained our study including the need for the upper gastrointestinal endoscopy. Written informed consent was taken. We included all subjects who have been complained of dyspeptic symptoms including heart burn, acid reflux, loss of appetite and loss of weight for at least 3 month periods. We harvested information from the patients with the help of validated questionnaire. We excluded patients with acute abdomen, unstable patients, unwilling patients, patients with bleeding disorders and on anticoagulant therapy. Also, we excluded patients those who are not willing to go for the endoscopy. The data was compiled and analyzed in SPSS and Microsoft Excel

### RESULTS

Total 95 patients were enrolled in our study. Complain of dyspepsia symptoms are more common in female 59(62.1%)

than male 36(37.9%). In our study, dyspepsia symptoms are more common 44(46.3%) among the age group of more than 50 years-old (Figure 1). However, the similar percentage of subjects 42(44.2%) were seen under age group of 30-49 years-old. The most common symptoms at presentation were abdominal pain seen in 42 (44.2%) patients, followed by heart burn seen in 36(37.89%) and regurgitation was seen in 33(34.73%). Acid reflux and dysphagia were seen in 27(28.42%) and 12(12.63%) patients respectively (Figure 2). Out of 95 patients, endoscopic findings were present in 82 subjects in at least esophagus or gastric or duodenal region. The prevalence of a hiatal hernia was seen in 48(50.52%) cases. Oesophagitis, gastritis and duodenitis were associated with dyspepsia symptoms which were 33(34.7%), 62(65.26%) and 4(4.21%) respectively (Figure 3).

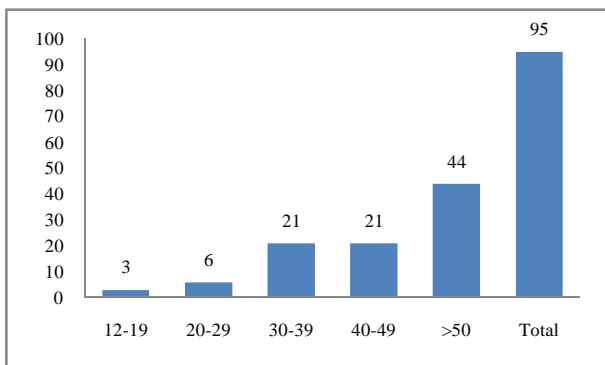


Figure 1 Distribution of dyspeptic symptoms among different age group

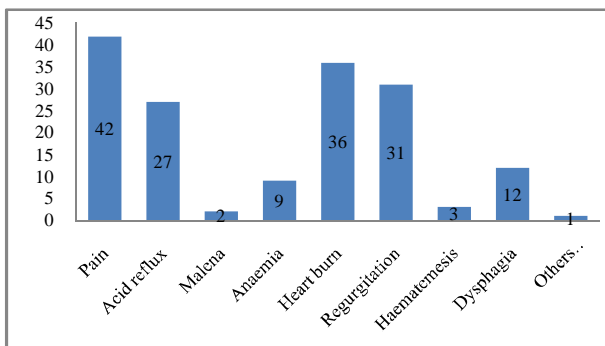


Figure 2 Dyspeptic symptoms at presentation

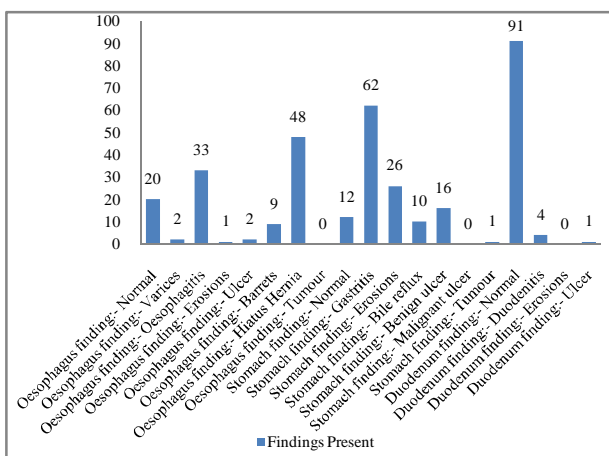


Figure 3 Endoscopic findings

## DISCUSSION

Dyspepsia is a constellation of symptoms range from abdominal pain to loss of appetite and loss of weight. Most of the patient had at least three dyspepsia symptoms and more

than 80% had at least six(7). *Helicobacter pylori* (*H.pylori*) plays major roll in dyspeptic symptoms and responsible for the pathogenesis of gastritis. *H.pylori* infection was found in 60% of dyspeptic symptoms(8).

In this study 42 (44.2%) patients were complained of abdominal pain, followed by heart burn seen in 36(37.89%) and regurgitation seen in 33(34.73%). Among the dyspepsia symptoms only one patient, 1(1.05%) complained of loss of weight and loss of appetite. A study was conducted in India where the most common symptom at presentation was the epigastric pain (84%), followed by retrosternal burning sensation seen in 51% of patients and acid reflux seen in 49% of patients(9). A similar study conducted by Shobna J *et al*, epigastric pain was the common symptoms at presentation(10). In our study, dyspepsia symptoms were more common among female 59(62.1%) than male 36(37.9%). However, study conducted by Krithika J *et al* and Rajesh Kumar G, where male were predominant(9). A study conducted by Jane C *et al*, which revealed that functional dyspeptic symptoms are more common among female(11). The global prevalence of functional dyspepsia in the community according to the (Rome III Committees) criteria is between 5% and 11%<sup>3</sup>. In our study, 8(8.42%) out of 95 subjects did not show any endoscopic features. This finding closely related to the global findings(3).

A study conducted by Santosh B *et al*, endoscopic findings among dyspepsia symptoms revealed normal in 43.67% patients(12). Peptic ulcer and oesophagitis were seen 25.95% and 4.43% patients respectively. A similar Indian study revealed that gastroesophageal reflux disease was seen in 21.25%, peptic ulcer 7.5%, Gastritis 14%, Hiatus hernia 7.5%, esophagitis 9%, Barrett's esophagus 3.75%, malignancy 3.75%, Polyp 2.5%(13).

Endoscopic examination revealed that gastritis was seen in 62 (65.26%) subjects which were the common findings in our study, followed by a hiatal hernia was seen in 48(50.52%) patients and oesophagitis 33(34.73%) patients. However, studies from the western countries showed that over half of patients with reflux oesophagitis had concomitant hiatal hernia(14)(15). The association between a hiatal hernia and reflux oesophagitis, not a new phenomenon, it could be observed from eastern countries, where the prevalence of both was low.

## CONCLUSION

The present study revealed the considerable prevalence of a hiatal hernia common among dyspepsia symptoms in Batticaloa region in Sri Lanka. Furthermore female more affected than the male counterpart. We have seen that maximum prevalence in the age group of more than 50 years. In our study pain, the upper abdomen was the most frequent symptom. In addition to that, endoscopic examination revealed gastritis was the common presentation followed by a hiatal hernia and oesophagitis. The percentage of functional dyspepsia closely related to the global findings. In the future high sensitive manometry should be a promising method for assessing the association between a hiatus hernia and gastroesophageal reflux disease. Most of the patients presented with a complex of three or more dyspeptic symptoms however, the symptom profile was not predictive of the endoscopic finding.

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