

Study of Barret's Oesophagus in Gerd Patients Diagnosed on Upper GI Endoscopy

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Abstract: *Barrett's oesophagus is a pre malignant condition. It is strongly associated with oesophageal adenocarcinoma. Diagnosis of Barrett's oesophagus was done by clinical evaluation, endoscopy, biopsy and histo-pathological examination. It is more commonly seen in males. Around 50% patients were having predisposing factors such as chronic smoking, alcohol and obese. We noted most of the patients have regurgitation, heart burns, nausea etc. From the histo pathological examination, we found that 5 patient had Barrett's oesophagus out of 97 biopsy taken. Large number of patients had only GERD. Treatment of Barrett's oesophagus suggested such as life style modification, medical and surgical management. Hence we have to identify various risk factors like GERD, smoking, alcohol and obesity which helps in early detection and early treatment of Barrett's oesophagus.*

Keywords: Barrett's oesophagus, GERD, GI endoscopy, Retrosternal pain, Regurgitation

1. Introduction

Barrett's oesophagus refers to an abnormal change (metaplasia) in the cells of the lower portion of the oesophagus. It occurs when the normal squamous epithelium lining of the oesophagus is replaced by columnar epithelium. The medical significance of Barrett's oesophagus is strong association with oesophageal adenocarcinoma (lethal cancer). The condition is named after Norman Barrett (1903 -1979) who described the condition in 1950¹. The main cause of Barrett's oesophagus is thought to be an adaptation to chronic acid exposure from reflux oesophagitis². It is found in 5-15% patients who seek medical care for heart burn (GERD), although a large subgroup of patients with Barrett's oesophagus do not have symptoms. It is associated with increased risk of adenocarcinoma of oesophagus of about 0.5% per patient year. Pathological types includes Gastric type (chief and parietal cells), Intestinal type (Goblet cells), Junctional type (Mucus and resembles gastric cardia). Clinical type includes long segment (metaplastic changes >3 cms), Short segment (metaplastic changes < 3 cms). Diagnosis of Barrett's oesophagus requires upper GI endoscopy and biopsy. After biopsy the cells are classified as Non-dysplastic, low grade dysplasia, High grade dysplasia, and Frank carcinoma. Non-dysplasia and low grade dysplasia are generally advised to undergo annual observation with endoscopy, with radiofrequency ablation as a therapeutic option. In high grade dysplasia, the risk of developing cancer might be at 10% per patient-year or greater³. High grade dysplasia and early stages of adenocarcinoma can be treated by endoscopic resection and new endoscopic therapies such as radiofrequency ablation, whereas advanced stages are generally advised to undergo surgical treatment.

2. Methodology

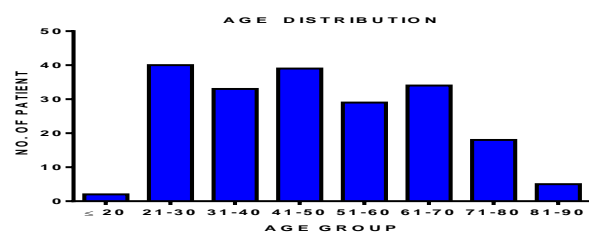
Hospital based cross-sectional study was conducted at Bharati vidyapeeth university medical college and hospital, Pune from September 2013 to August 2015. We had enrolled total 200 patients in the current study. Inclusion criteria were all patients between 18 to 65 years,

patients with suspected Barrett's oesophagus in GERD on endoscopy. Exclusion criteria patients below 18, patients not willing for endoscopy, on endoscopy GERD patients with other pathology like peptic ulcers, carcinoma, gastritis and oesophageal varices. All the patients were undergone upper GI endoscopy for diagnosis for dyspepsia. Out of 200 patients suspected Barrett's oesophagus or abnormal OG junction was in 97 patients, so these patients subjected to biopsy and sent for histo-pathological examination, we found that 5 patient had Barrett's oesophagus out of 97 biopsy taken. Rest of 103 patients were having normal OG junction on endoscopy or other causes of dyspepsia like gastritis, gastric ulcer, duodenal ulcer, Gastric outlet obstruction, Carcinoma or Appendicular dyspepsia.

3. Results

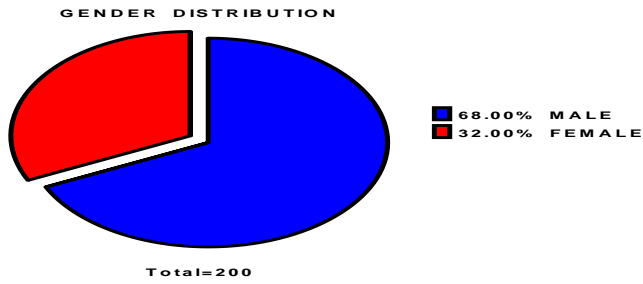
1) Age Distribution

We had enrolled total 200 patients in the current study. Out of 200 patients, minimum number of patients were in the second decade (n=2, 1%). While the highest number of patients were in the 3rd decade (n=40, 20%). We observed between 31 to 70 years total 135 number of patients (66%).



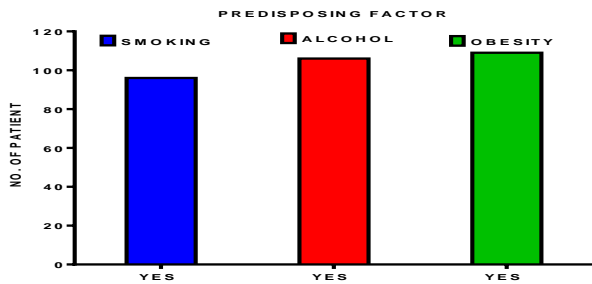
2) Gender

Gender wise distribution of Barrett's oesophagus in GERD revealed a greater percentage of males (n=136, 68%) patients. The incidence among females was quite low (n=64, 32%). A male to female's ratio was 17:8.



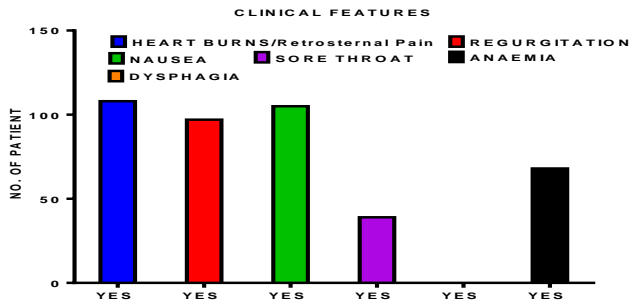
3) Predisposing Factors

The predisposing factors were associated with routine life style. Here, we noted that >50% patients have addiction of alcohol and were obese. Smoking was reported in 96 patients (n=48%).



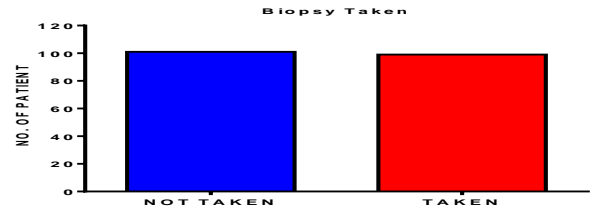
4) Clinical Features

We also observed clinical features of patients. We noted regurgitation in all patient (n=97, 48.5%), heart burns (n=108, 54%), nausea (n=105, 52.5%), anaemia (n=68, 34%), sore throat (n=39, 19.5%). We did not find any patients having dysphagia.



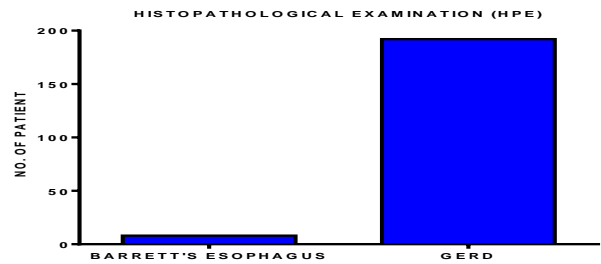
5) Biopsy Taken

Out of 200 patients suspected Barrett's or abnormal OG junction-lower Oesophageal mucosa was found in 97 patients (48.5%) so these patients were subjected to biopsy. Rest of 103 patients (51.5%) were having normal OG junction on endoscopy or other cause of dyspepsia symptoms like Gastritis, Gastric ulcer, Duodenal ulcer, Gastric outlet obstruction or appendicular dyspepsia.



6) Histo-Pathological Examination (HPE)

From the histo-pathological examination, we found that only (n=5, 5.15%) 5 patient have Barrett's oesophagus out of 97 biopsy taken. Large number of patients had GERD (n=195, 97.5%).



4. Conclusion

Barrett's Oesophagus is a pre malignant condition. It is strongly associated with Oesophageal adeno-carcinoma. Diagnosis of Barrett's Oesophagus was done by clinical evaluation, endoscopy, biopsy and histo-pathological examination. It is more commonly seen in males. Around 50% patients were having predisposing factors such as chronic smoking, alcohol and obese. We noted most of the patients have regurgitation, heart burns, nausea etc. From the histo-pathological examination, we found that 5 patient had Barrett's Oesophagus out of 97 biopsy taken. Large number of patients had only GERD. Treatment of Barrett's Oesophagus suggested such as life style modification, medical and surgical management. Hence we have to identify various risk factors like GERD, smoking, alcohol and obesity which helps in early detection and early treatment of Barrett's Oesophagus.

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