

# OUTCOMES OF UPPER ENDOSCOPY FOR GASTROESOPHAGEAL REFLUX DISEASE IN PATIENTS ABOVE 30 YEARS PATIENTS

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## ABSTRACT

**Background:** Gastroesophageal reflux disease (GERD) is a common disorder in our population and Gastroendoscopy is one of the useful tools to find its cause.

**Materials and Methods:** It was a descriptive cross sectional Study and done at District Headquarter Teaching Hospital Dera Ismail Khan from January 2017 to February 2018, recruiting 84 patients with gastroesophageal reflux disease. The inclusion criteria was male and female patients above 30 years of age having GERD lasting for more than 8 weeks despite of taking proton pump inhibitors in therapeutic doses were included in the study. After admission in ward and clinical work up, Upper GI endoscopy was done in all patients, biopsy was taken in all patients from esophagus and stomach and were subjected to histopathological studies. All the data was entered and analyzed in SPSS Version 20.

**Results:** The mean age of male and female patients was 55.36 years  $\pm$  12.30SD and 55.70 years  $\pm$  12.23SD respectively with overall mean age of 55.61 years  $\pm$  12.25SD. There were 65 (77.38%) males while females were 19 (22.61%). Endoscopic findings were; Gastritis in 27 (32.14%), Peptic ulcer disease in 20 (23.81%), esophagitis in 24 (28.57%), Barrett's esophagus in 6 (7.14%) and adenocarcinoma stomach was observed in 7 (8.33%) patients.

**Conclusion:** GERD is a common disease in our population and endoscopy is a useful tool for establishing the cause of GERD, Gastritis and esophagitis were common causes of GERD in our study.

**Key Words:** Gastroesophageal reflux disease; Gastroendoscopy; esophagitis

## INTRODUCTION

Gastroesophageal reflux disease (GERD) is the most common disorder related with acid disorder. For its diagnosis and management, various guidelines and recommendations have been published, but in our country, there is still lacking of evidence based recommendations<sup>1</sup>.

In west, 10% to 20% of the population experiencing weekly symptoms of GERD<sup>2</sup>. In Asia, the prevalence has been reported from 2.3% to 6.2%<sup>3,4</sup> but population-based survey studies indicate that more and more people are suffering from GERD with increase in prevalence. The causes and risk factors for this rise include increase in age of patient, the obesity epidemic and associated dietary changes or decrease in physical activity, and changes in sleep pattern<sup>5</sup>

The typical symptoms are heartburn and regurgitation for diagnosing the gastroesophageal reflux syndrome<sup>6,7</sup>, however the alarming symptoms have

been excluded like abdominal mass, anemia, vomiting, gastrointestinal bleeding, progressive dysphagia, and unexplained weight loss. These are usually associated with malignant disease or complications<sup>8</sup>.

Endoscopy is commonly performed for the diagnostic, therapeutic purposes and follow up of gastroesophageal reflux disease. With the help of Endoscope, the physician is able to directly evaluate esophageal mucosa for evidence of esophagitis and Barrett esophagus. Physicians can also obtain mucosal biopsies during endoscopy for histopathologic studies for diagnosing conditions such as eosinophilic esophagitis and Barrett esophagus and its grading. It is also used for applications of various therapies. If the patient has suboptimal response to therapy, then again endoscopy is very helpful in excluding other causes<sup>9</sup>.

Upper endoscopy is indicated in patients in whom typical GERD symptoms persist and do not improve with proton-pump inhibitor therapy taken by patient two times a day for 4 to 8 weeks. It is also indicated in severe erosive esophagitis for the assessment of healing and to rule out Barrett esophagus after a course of proton-pump inhibitor therapy for 2 months. However in the absence of Barrett esophagus, recurrent endoscopy is not indicated.<sup>10</sup>

The aim of the study was to find the Outcomes of Upper endoscopy for gastroesophageal reflux disease in patients above 30 years patients in our set up.

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## MATERIALS AND METHODS

This descriptive cross sectional Study was done at District Headquarter Teaching Hospital Dera Ismail Khan during the period of one year from January 2017 to February 2018, recruiting 84 patients with gastroesophageal reflux disease. GERD was defined as the patient having Heartburn and regurgitation lasting for 14 days. The inclusion criteria adopted was; all patients of either gender above 30 years of age having GERD lasting for more than 8 weeks despite of taking proton pump inhibitors in therapeutic doses. The patients excluded were all those patients having GERD associated with Nausea and vomiting, abdominal mass, bleeding, anemia, weight loss, and difficulty in swallowing. Patients having bleeding disorders, previous gastrectomy or bowel resection, patients having chronic hepatitis B or chronic hepatitis C infection were also excluded from the study.

The purpose and benefits of the study were explained to all patients and a written informed consent was taken. All the patients were admitted in ward through OPD and prepared by taking detailed history of the disease, relevant clinical examination followed by routine investigation for upper gastrointestinal endoscopy was done in all patients on next list. Biopsy was taken in all patients from esophagus and stomach and were subjected to histopathological studies. .

The name and age of patients, their gender and address were recorded in a pre-designed proforma. For the control of confounders and prevention of bias in the study, the exclusion criteria was strictly followed. All the data was entered and analyzed in SPSS Version 20.

## RESULTS

The mean age of male patients in our study was 55.36 years  $\pm$  12.30SD and in female it was 55.70 years  $\pm$  12.23SD. The overall mean age was 55.61 years  $\pm$  12.25SD. There were 65 (77.38%) males while females were 19 (22.61%) in the study group.

Maximum patients were with Gastritis and was noted in 27 (32.14%) patients. Peptic ulcer disease was noted in 20 (23.81%), esophagitis in 24 (28.57%),

Barrett's esophagus in 6 (7.14%) and adenocarcinoma stomach was observed in 7 (8.33%) patients. Gastritis was maximum (20 (23.81%)) in 30-40 age group, peptic ulcer disease was maximum (15 (17.86%)) in 41-50 years age group, esophagitis (6 (7.14%)) and Barrett's esophagus (12 (14.29%)) were maximum in age groups of 51-60 and 61 and above age groups respectively. Table No. 1

## DISCUSSION

The Montreal Consensus Conference defines GERD is defined as the presence of acid-reflux-related symptoms, or esophageal mucosal damage, caused by the abnormal reflux of gastric contents into the esophagus.<sup>11</sup>. According to literature, multiple factors are involved in the development of GERD and it becomes more common and severe with increasing age, so elder patients are prone to have more risk of acid-related disorders and it is due to the development of multiple comorbidities at advanced age and taking medications at older age like nonsteroidal anti-inflammatory drugs for joint pains and other problems.<sup>12</sup>

In our study, male patients were predominant having GERD and males 77.38% as compared to females (22.61%). On the other hand Dent et al. study the incidence and severity of GERD symptoms in patients regarding their socio-demographic parameters. This study showed no difference in incidence between males and females but GERD symptoms were found at a higher rate in older patients ( $p=0.0002$ )<sup>13</sup>. In our study, Gastritis was the most common findings on endoscopy i.e. (32.14%) patients. Then esophagitis was the second most common finding (28.57%) followed by Peptic ulcer disease in 20 (23.81%). The least common were Barrett's esophagus (7.14%) and adenocarcinoma stomach 7 (8.33%).

According to Vakil N and Richter JE et al,<sup>14,15</sup> On EGD, approximately 40-50% of patients with prolonged reflux have findings of esophagitis on endoscopy however, the presence of esophagitis is 90-95% specific but not sensitive for the diagnosis of GERD<sup>16</sup>. Barrett's esophagus is reported by Kamat P up to 8% in patients with a history of heartburn.<sup>17</sup>. In a study by Rosaida MS

**Table No. 1: Common Findings And Their Age Wise Distribution Of Upper Endoscopy For Gastroesophageal Reflux Disease In Patients Above 30 Years Patients**

Age Group	Gastritis	Peptic Ulcer Disease	Barrett's esophagus	Esophagitis	Adenocarcinoma stomach	Total
30-40	20 (23.81%)	10 (11.90%)	0 (%)	1 (1.19%)	0 (%)	31 (36.90%)
41-50	5 (5.95%)	15 (17.86%)	0 (%)	5 (5.95%)	1 (1.19%)	16 (19.04%)
51-60	0 (%)	3 (3.57%)	3 (3.57%)	6 (7.14%)	2 (2.38%)	14 (16.66%)
61 and above	2 (2.38%)	2 (2.38%)	3 (3.57%)	12 (14.29%)	4 (4.76%)	23 (27.38%)
Total	27 (32.14%)	20 (23.81%)	6 (7.14%)	24 (28.57%)	7 (8.33%)	84

et al, they found that 13.4% patients had endoscopic evidence of reflux oesophagitis, 65.5% patients were having NERD. Hiatus hernia was found in 6.7% while Barrett's oesophagus was noted in 2% of patients<sup>18</sup>.

The main limitation of our study was that it was a pilot study and a larger sample size was required to consolidate the observed findings on endoscopy and the presence of GERD. The limited sample size may be the cause of less numbers of female participants. Also we didn't study the potential risk factors of GERD like cigarettes smoking, Older age, gender, race, emotional stress and higher body mass index (BMI) in our study. Another limitation is that we had no data for monitoring of 24-h pH and to define GERD, we only relied on questionnaire data.

## CONCLUSION

GERD is a common disease in our country and endoscopy is a useful tool for establishing the cause of GERD. Gastritis and esophagitis were common causes of GERD in our study.

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