

Profile of Patients Presenting with Heartburn and Treatment of Erosive Esophagitis with Esomeprazole - An Experience

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It's a descriptive analytical study done at Lahore Gut and Liver Centre during March 2005 to February 2006. **Material & method:** 260 patients who presented with heartburn were included in the study. Their symptoms are recorded and graded a/c to severity. Upper GI Endoscopy done to grade the mucosal injury a/c to LA Classification. First forty patients who were having Erosive Esophagitis were started on Esomeprazole 40mg once daily. Patient reviewed after every 2 weeks for symptom improvement and adverse events. After 8 weeks UGIT Endoscopy repeated to see mucosal improvement in those patients in which mucosal break was recorded at the start of therapy (a/c to LA Classification). Dose increment to 40mg twice a day made, if no symptomatic improvement in 2 weeks. **Results:** 260 patients in the range of 16 to 75 years, with mean age 37 years, with male to female 1:1.4, mean BMI 29%. 40% were smokers and 10% taking regular Alcohol (25 units/week), 12% got DM. 3% got Chronic Liver Disease due to HCV infection. Regurgitation 75%, Nausea/Vomiting 30% Chest Pain. 20% dysphagic 10%, water brash 60%, Epigastric pain 30%, Early Satiety 35%, Bloating 20%. 95 patients (36.53%) had Erosive Esophagitis; 155 patients (59.6%) no evidence of mucosal injury; 10 patients (3.84%) got Barret's Eshophegitis. First forty patients who showed Erosive Esophagitis has age range of 16-60 years. 38 patients completed the therapy, 2 patients lost to follow up. Main age was 35 years with male to female ratio of 1.2:1.45% patients were smokers, average BMI of 30. An improvement trend in symptoms by at least 2 levels a/c scale was seen in 20% in 2 weeks, 50% by 4 weeks and 95% by 8 weeks. At the end of study (8 weeks) improvement in mucosal change is 100%. The adverse events noted are bloating 45% and loose stools and headache 20% each. **Conclusion:** Various overlap symptoms are common in GERD. Endoscopic negative GERD is common, Esomeprazole is effective in GERD

Key words: Gastroesophageal reflux disease, Esophagitis Endoscopy. Esomeprazole

Gastroesophageal reflux disease (GERD) is a well-defined common upper gastrointestinal disease. GERD is defined by the presence of esophageal mucosal breaks or by the occurrence of reflux induced symptoms severe enough to impair quality of life^{1),(2)}. The Genval Workshop defined GERD as "Gastroesophageal reflux disease" (GERD, reflux disease) should be used to include all individuals who are exposed to the risk of physical complications from Gastroesophageal reflux, or who experience clinically significant impairment of health related well-being (quality of life) due to reflex related symptoms, after adequate reassurance of the benign nature of their symptoms⁽³⁾. Gastroesophageal reflux is common in adults and its incidence has increased world under in the last few years⁽⁴⁾. This might be attributed to an increased awareness and/or a true increase in the prevalence of the GERD. In various parts of Pakistan 7-20% incidence of GERD was recorded in different studies⁽⁵⁾. Most of the patients are either non-consulters or report to Family Physicians and only few patients come to specialist for this problem. GERD is characterized by a variety of symptoms including three that are attributed directly to retrograde flow of gastric fluid into the esophagus such as retrosternal chest pain, heartburn and regurgitation, besides some overlapping symptoms originating from upper GIT⁽⁶⁾. The GERD symptoms occur spontaneously or are precipitated by positioning such as leaning forward and lying down. Food, drink or drugs which decrease the pressure of the lower esophageal sphincter. These dietary/life style habits promote reflux through changes in the intragastric, lower

esophageal sphincter and in the abdominal pressures. Symptoms are present in 82-97% of subjects with endoscopically proven esophagitis. Normally acid regurgitation occurs in approximately 7% of the adult population on a daily basis, in 14-20% on a weekly basis and in 36-44% on a monthly basis. There has been considerable advancement of Gastroesophageal reflux disease and initial management is usually by symptom evaluation and empirical therapy with PPI⁽⁷⁾. Many patients of clinical diagnosis of GERD or having epigastric pain do not show any abnormality on endoscopic examination. These are labeled as endoscopic negative GERD or NERD. In the present study, we evaluated the presenting symptoms of GERD and endoscopic finding in these patients. After documenting the Erosive Esophagitis, role of Esomeprazole in these patients.

Material & method

It's a descriptive analytical study done at Lahore Gut and Liver Centre during March 2005 to February 2006. convenient sampling done and results are analyzed by SPSS-10. 260 patients who presented with heartburn twice per day for 3 months or more and fulfilling the inclusion criteria were included in the study. Their symptoms were recorded and graded a/c to severity. Upper GI Endoscopy done to grade the mucosal injury a/c to LA Classification.

Inclusion Criteria

- Male and female patients age from 16-60 years
- Patients with heartburn at least twice a day for 3 months or more.

Exclusion Criteria

- Male and female patients age less than 16 years and more than 60 years
- Known Hypersensitive to PPI
- Pregnancy
- Any life threatening conditions
- Patients on NSAIDs
- Uncontrolled metabolic disorders
- Advance renal failure/liver failure

First forty patients who were having Erosive Esophagitis were started on Esomeprazole 40mg once daily. Patient reviewed after every 2 weeks for symptom improvement and adverse events. After 8 weeks UGIT Endoscopy repeated to see mucosal improvement in those patients in which mucosal break was recorded at the start of therapy. Dose increment to 40mg twice a day made, if no symptomatic improvement in 2 weeks.

Results

260 patients in the range of 16 to 75 years, with mean age 37 years, with male to female 1:1.4, mean BMI 29%. 40% were smokers and 10% taking regular Alcohol (25 units/week), 12% got DM. 3% got Chronic Liver Disease due to HCV infection.

Symptoms Analysis showed Regurgitation 75%, Nausea/Vomiting 30% Chest Pain. 20% dysphagic 10%, water brash 60%, Epigastric pain 30%, Early Satiety 35%, Bloating 20%.

Table-1: Audit of patients with heart burn

No of Pts	260
Mean Age	37
Male to Female Ratio	1:1.4
Mean BMI	29
Smokers	40%
Alcoholics	10%
Diabetes	12%
Hcv-CLD	03%

Table-2: Symptom analysis

Regurgitation	75%
Water Brash	60%
Early Satiety	35%
Nausea	30%
Epigastric Pain	30%
Chest Pain	20%
Bloating (Gas)	20%
Weight Loss	10%
Dysphagia	10%

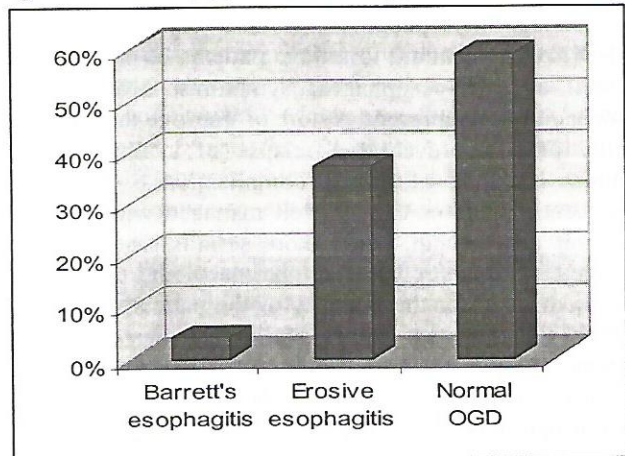
On Upper GI Endoscopy 95 patients (36.53%) had Erosive Esophagitis; 155 patients (59.6%) no evidence of mucosal injury; 10 patients (3.84%) got Barret's Eshophegitis (Table 1, 2). The first 40 patients who showed Erosive Esophagitis has age range of 16-60 years. 38 patients completed the therapy, 2 patients lost to follow up. Main age was 35 years with male to female ratio of 1.2:1.45% patients were smokers, average BMI of 30. An improvement trend in symptoms by at least 2 levels a/c

scale was seen in 20% in 2 weeks, 50% by 4 weeks and 95% by 8 weeks. At the end of study (8 weeks) improvement in mucosal change is 100%. The adverse events noted are bloating 45% and loose stools and headache 20% each (Table 3).

Table-3: Profile of patients with erosive esophagitis

No of patients	40(38 completed the study)
Age range	16-60 Years
Mean age	35 Years
Male, female ratio	23 male 15 female
Lost to follow up -	02
Acute Asthma -	1pt.
Smokers	35%
Average BMI	30
<i>Symptom Improvement with Esomeprazole</i>	
in 2 weeks	20%
In 4 weeks	50%
In 8 weeks	95%
Dose increment required	30%
Mucosal improvement in 8 weeks	100%
<i>Adverse events with Esomeprazole</i>	
Loose stool	20%
Abdominal distension	45%
Heacache	20%

Figure 1: Results of upper G.I. endoscopy



Discussion

Gastroesophageal reflux disease is a spectrum of disease with classic symptoms of heartburn and acid regurgitation at one end without evidence of esophageal mucosal injury and erosive esophagitis and complications of Barrett's esophagus and esophageal adenocarcinoma at the other end⁸. Besides three cardinal symptoms of heartburn, regurgitation and chest pain some overlap symptoms originating from upper GIT such as Epigastric pain, early satiety, Nausea, vomiting, water brash, bloating may be there.

GERD can present atypically as chronic cough, asthma, angina-like chest pain, laryngitis, epigastric discomfort, bloating, sinusitis, pneumonitis, laryngitis, and intractable nausea. So presentation of GERD can be variable in different patients⁹. GERD are often conveniently grouped under three phenotypic categories¹⁰.

- a. Non-Erosive reflux disease (NERD)
- b. Erosive oesophagitis
- c. Barrett's Oesophagus

Erosive Oesophagitis is defined as reflux disease with endoscopically visible erosion or ulceration of oesophageal mucosa, regardless of the nature of symptoms. On the other hand, NERD refers to GERD that is not associated with oesophageal mucosal lesion. Most patients (60% to 70%) with heartburn do not have oesophagitis¹¹.

Our study showed that 36.53% patients had evidence of erosive disease & 59.6% had Non-Erosive reflux disease. In another study in Pakistan. Population conducted by B.F. Zuberi, N. Faisal et al, showed same results as Non-Erosive reflux disease as predominant type¹².

GERD is considered to be primarily a motility disorder characterized by abnormally frequent transient relaxations of the lower esophageal sphincter and loss of lower esophageal sphincter tone in the basal state. Both of these abnormalities facilitate reflux of acidic gastric contents into the lower esophagus. Gastric acid is considered a central importance to the initiation and perpetuation of the esophageal damage and the development of symptoms in patients with GERD¹³.

24 hour acid control is vital for the symptom control and healing of esophagitis¹⁴. So the key objectives in GERD management are to relieve patients of oesophageal as well as extra-oesophageal symptoms, heal existing oesophagitis wherepresent, restore or improve the patient's quality of life, prevent the relapse of symptoms, and minimize the risk of further complications¹⁵. Mild and infrequent symptoms can be well managed with lifestyle measures and antacid, while more serious cases may be managed with more potent pharmacologic agents or surgery. In fact, for the majority of the patients, an initial empiric therapy with a PPI, following the step-down strategy (start with most potent acid suppression and decrease strength to a level where symptom control remains optimal) is appropriate¹⁶.

Esomeprazole (S isones of Omeprazole) new member of PPI, got potent inhabitation of intra gastric patient above 4¹⁷. In most of the western studies improvement in symptoms with Esomeprazole in GERD patients is early; in 1st week, but in our study only 20% patients show significant improvement in 2 weeks; and after 8 weeks 95% patients show improvement. The reason for this show response is perhaps high BMI in our study (average BMI 30)¹⁸. The improvement in mucosal injury (100% in our study after 8 weeks) is comparable to other studies¹⁹. The main adverse effects noted are abdominal distension 45%, and stool and headache 20% each. The adverse effects, are noted with considerably high as compared to pharmaceutical literature and few western studies^{20,21}.

Conclusion

1. Besides heartburn, regurgitation and chest pain, various overlap symptoms are common in GERD.

2. Endoscopically negative GERD (NERD) is common than Erosive Esophagitis.
3. Esomeprazole is an effective drug for symptom control and healing of Erosive Esophagitis with few minor side effects.

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