

Research Article**Medical line of treatment versus surgical approach in the treatment of chronic peptic ulcer****Arun kumar RV¹, Mohan SVS², Nagashree³**¹Assistant professor, Department of General Surgery, Subbaiah Institute of Medical Sciences and Research Centre, Shimoga, Karnataka, India²Assistant professor, Department of General Surgery, Shimoga Institute of Medical Sciences, Shimoga, Karnataka, India³Intern, Department of General Surgery, Shimoga Institute of Medical Sciences, Shimoga, Karnataka, India***Corresponding author**

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Abstract: Peptic ulcer disease was one of the major cause of morbidity and mortality until the last decades of the 20th century. In recent time epidemiological trends started to point to an impressive fall in its incidence due to the discovery of effective and potent acid suppressants and antibiotics against *Helicobacter pylori*. The main aim and objective of this study is to compare between, conservative medical lines of treatment versus surgical approach in treatment of chronic peptic ulcer. The present clinical study was carried out at surgical wards of Subbaiah Institute of Medical Sciences and Research Centre, in the period of March 2014 to March 2015. Patients were selected based on inclusion and exclusion criteria's. Following selection of patients, they were subjected to medical line of treatment for 2-3 months with Omeprazole 40mg, Amoxicillin 1550mg / Clarithromycin 500mg and Tinidazole 1000 mg (7days course in a month repeated for 2 months) and the cases were followed up for varying length of time. Among 15 cases, 10 cases were treated successfully with medical line of management. One case had anterior duodenal ulcer perforation for which emergency laparotomy and closure of perforation was done and other 4 cases underwent posterior gastrojejunostomy with bilateral truncal vagotomy for peptic ulcer complications like deformed duodenal cap and early signs of pyloric stenosis. The incidence of surgery in recent years for chronic Peptic Ulcer Disease has reduced because of advent of proton pump inhibitors and H2 receptor blockers and combination drugs with antibiotics which proved effective against *Helicobacter pylori* infection.

Keywords: Peptic ulcer disease, Gastrojejunostomy

INTRODUCTION

Peptic Ulcer Disease (PUD) is the major gastrointestinal disorders causing ulcers in the gastric or duodenal mucosa that extend into the submucosa or deeper. Peptic Ulcer Disease be acute or chronic but are ultimately caused by an imbalance between mucosal defences and acid/peptic injury [1, 2]. From clinical experience and retrospective hospital based surveys, it has been suspected that peptic ulcer is widely prevalent in India. It had a tremendous effect on morbidity and mortality until the last decades of the 20th century, when epidemiological trends started to point to an impressive fall in its incidence. The discovery of effective and potent acid suppressants and antibiotics against *Helicobacter pylori* are the main developments associated with the decrease in rates of peptic ulcer. With the discovery of *Helicobacter pylori* infection, the causes, pathogenesis and treatment of peptic ulcer disease have been rewritten.

The main aim and objective of this study is to compare between, conservative medical lines of treatment versus surgical approach in treatment of chronic peptic ulcers.

MATERIALS AND METHODS

The present clinical study was carried out at surgical wards of Subbaiah Institute of Medical Sciences and Research Centre from the period of March 2014 to March 2015.

Source and methods of collection of the data:

Patients were selected based on inclusion and exclusion criteria's which is as follows;

Inclusion criteria:

1. Both males and females patients
2. Age group between 35 and 45 years
3. Consent to participate in study
4. Study included both conservative, elective surgery and emergency laparotomy

Exclusion criteria:

1. On endoscopy,
 - a. Deformed duodenal cap
 - b. Pyloric Stenosis
2. Repeated and chronic history of peptic ulcer

Following selection of patients, they were subjected to medical line of treatment which included combination of drugs like Omeprazole 40mg, Amoxicillin 1550mg / Clarithromycin 500mg and Tinidazole 1000 mg with antacid gel and bland diet for 2-3 months (7days course in a month repeated for 2 months) The cases were followed up for varying length of time.

RESULTS

15 cases were studied. People around 35 - 45 years formed the maximum numbers in the study. Among 15 cases 10 were males and 5 were females with ratio of 2:1 and the age incidence is depicted in Figure 1.

Among 15 cases, 10 cases were treated successfully with medical line of management. One case had anterior duodenal ulcer perforation for which emergency laparotomy and closure of perforation was done and other 4 underwent posterior gastrojejunostomy with bilateral truncal vagotomy for peptic ulcer complications like deformed duodenal cap and early signs of pyloric Stenosis which is shown in Figure 2.

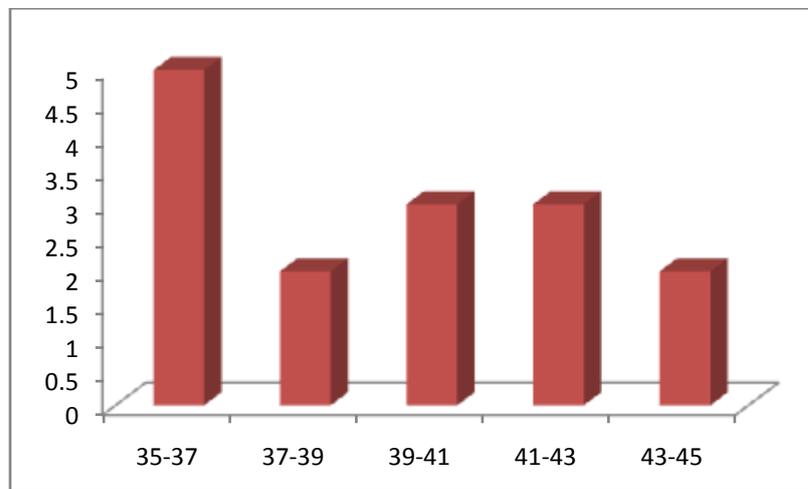


Fig.1: Age incidence

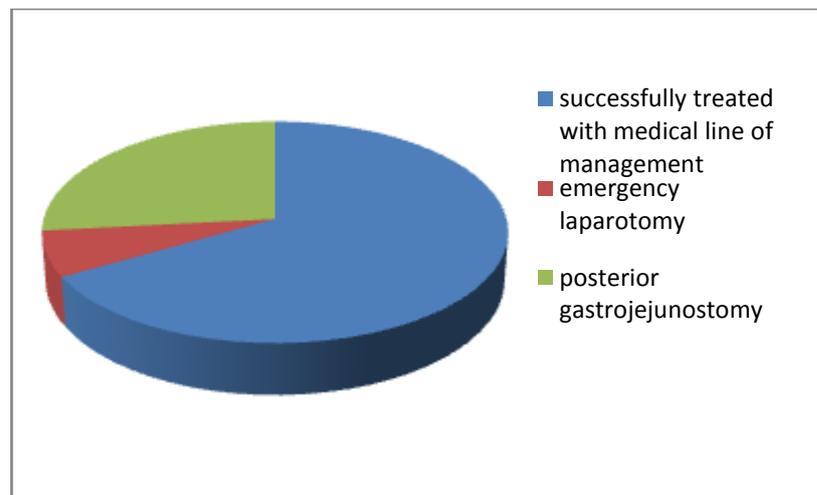


Fig. 2: Cases analysis

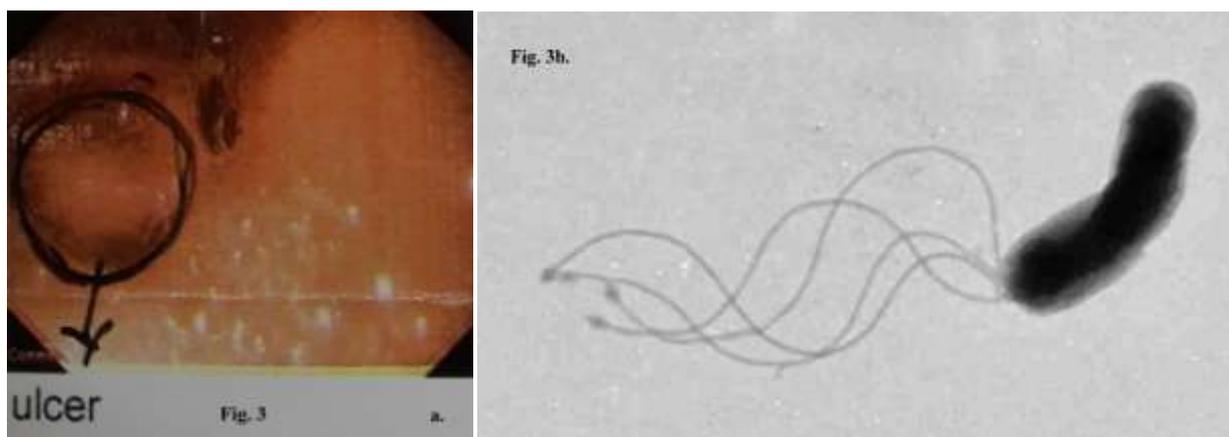


Fig-3 shows the endoscopic picture of an ulcer (a) and an electron microscopic picture of an *H. pylori* bacillus (b).

DISCUSSION

Till date peptic ulcer is a common outpatient diagnosis, but the number of physical visits, hospital admissions, and elective operations for Peptic Ulcer Disease has decreased steadily and dramatically over the past 3 decades. The data from many excellent randomised clinical trials evaluating elective operations for PUD over several decades may be irrelevant to most patients presenting for ulcer surgery today [3]. Interestingly, the use of H₂ receptors blockers or proton pump inhibitors and antibiotics against *Helicobacter pylori* infection drastically decrease the number. The cases of PUD are very well treated with medical line of treatment if *H. Pylori* infection is documented [7]. The indications for surgery in PUD are bleeding, perforation, obstruction and intractability/non-healing [3, 4]. The bleeding ulcers have been inextricably linked to the use of NSAID's/aspirin[5]. Most patients undergoing surgery for PUD have simple over sewing of a bleeding ulcer or simple patch of a perforated ulcer [6].

There are previous studies showing that PUD is well managed by medical line of management but the same studies suggest emergency surgical procedures for complications of PUD. The present study concurs with these past studies.

CONCLUSION

Thus from the present study and the records available it can be concluded that PUD cases can be better managed with medical line of treatment of H₂ blockers and PPI's. Surgery should be reserved for cases with complications only and should not be performed routinely.

REFERENCES

1. Holle GE; Pathophysiology and modern treatment of ulcer disease. *Int J Mol Med.*, 2010; 25(4): 483-491.
2. Leong RW; Differences in peptic ulcer between the East and the West. *Gastroenterol Clin North America*, 2009; 38: 363-79.

3. Harbison SP, Dempsey DT; Peptic ulcer disease. *Curr Probl Surg*, 2005; 42: 346.
4. Mulholland MW, Debas HT; Chronic duodenal and gastric ulcer. *Surg Clin North Am*, 1987; 67: 489.
5. Lanas AA; review of gastrointestinal safety data-a gastroenterologist's perspective. *Rheumatology*, 2010; 49(s2): 3-10.
6. Yang YR, Richter JE, Dempsey DT; Trends and outcomes for peptic ulcer disease in the United States 1993-2006. *Annals of Surgery*, 2010; 25(1): 51-58.
7. Chey WD, Wong BCY; Practice Parameters Committee of the American College of Gastroenterology. American College of Gastroenterology guideline on the management of *Helicobacter pylori* infection. *Am J Gastroenterol*, 2007; 102(8): 1808-1825.