



## A CLINICAL STUDY ON GASTRIC OUTLET OBSTRUCTION IN A TERTIARY CARE HOSPITAL IN COASTAL ANDHRA PRADESH

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### ABSTRACT

**Introduction:** Gastric outlet obstruction is one of the common problem encountered in General Surgery. The causes behind this problem has changed, comparing with the incidence in the past. In this study, the various aspects and management of Gastric outlet obstruction are analyzed. **Aims And Objectives:** To study the etiological causes of gastric outlet obstruction in adults getting admitted in King George Hospital. To study sex and age distribution in each of the causes. To study the various types of management. **Materials And Methods:** This is a cross sectional observational study among the patients attending surgical emergency department with Gastric outlet obstruction, in King George hospital, vishakhapatnam between September 2020 to September 2021. The patients were investigated by routine investigations like UGIE, USG abdomen, barium meal and CECT abdomen in selected cases. All cases were taken up for curative/palliative surgery and operated depending upon the causes. Patients younger than 18 years of age are excluded. **Results:** In this series of 25 cases, all the patients who presented with Gastric outlet obstruction, 18 are males, 7 are females. Majority are in the age group 41-50 years. Carcinoma stomach is seen in 18 cases and Chronic duodenal ulcer in 6 cases and other cause in 1 case. All patients were posted for laparotomy and Sub total gastrectomy with Billroth II anastomosis was done in 12 cases and Gastrojejunostomy was done in 7 cases and inoperable in 6 cases. **Conclusion:** With the advent of PPI's the commonest cause of GOO is Cancer Stomach, which has compared well with the recent studies. Males are more commonly affected in both Carcinoma stomach and Chronic duodenal ulcer. UGIE is a valuable tool in diagnosing all the causes.

**KEYWORDS :** Gastric outlet obstruction, Carcinoma Stomach, Chronic Duodenal Ulcer.

### INTRODUCTION:

- Gastric outlet obstruction is an obstruction occurring at the level of pylorus or duodenum due to various causes.
- The two most common causes of are:
  - Gastric malignancy,
  - and Pyloric stenosis secondary to peptic ulcer disease.
- The symptoms and signs of Gastric outlet obstruction are: Vomiting- projectile, bilious, usually nocturnal (at the end of the day)
  - Abdominal Pain
  - Abdominal distension
  - Visible gastric Peristalsis and Succussion splash on physical examination.
- Gastric outlet obstruction is one of the common problem encountered in General Surgery.
- The causes behind this common problem has changed, comparing with the incidence in the past.
- In this study on the gastric outlet obstruction, the various aspects and management of the gastric outlet obstruction, are analyzed.
- In this study, main focus is on the two most common causes of gastric outlet obstruction and their management in the King George Hospital, Andhra Medical College.

### CASE STUDY:

- Source of Data: The present study is a cross sectional observational study consisting of 25 cases admitted in King George Hospital, Visakhapatnam, during the period from September 2020 to September 2021 for elective abdominal surgery.
- Method of collection of Data:
- Study type: Cross-sectional Observational study
- Inclusion criteria: Patients admitted with signs and symptoms of Gastric outlet obstruction during the study period.
- Patients of age 18 to 85 years.
- Patients who are willing to give informed consent.
- Exclusion criteria: Patients younger than 18 years.

Patients with readmission diagnosis of Carcinoma Stomach or Chronic duodenal ulcer through endoscopy done outside.

Patients who are not willing to give consent

Statistical Analysis: All continuous variables were expressed as mean and number of percentages were used for categorical variables. Chi-square test and student t test and multivariate logistic analysis were used.  $P < 0.05$  was considered statistically significant.

### RESULTS:

After completing all investigations of the 25 cases the cause were found to be as follows:

**Table - 1 Case Distribution**

Causes	Number of cases
Carcinoma of Stomach	18
Chronic Duodenal Ulcer	6
Other Causes	1
Total	25

Gastric Outlet Obstruction due to Carcinoma Stomach:

**Table - 2 Age Distribution**

Age Interval	Number of cases
30 - 40	1
41 - 50	3
51 - 60	7
61 - 70	3
Total	14

**Table - 3 Sex Distribution**

Male	10
Female	4
Total	14

- Gastric Outlet Obstruction due to Chronic Duodenal ulcer:

**Table - 4 Age Distribution**

Age Interval	Number of cases
31 - 40	2
41 - 50	5
51 - 60	3
Total	10

**Table - 5 Sex Distribution**

Male	7
Female	3
Total	10

**DISCUSSION:****IN PATIENTS WITH GASTRIC OUTLET OBSTRUCTION DUE TO CARCINOMASTOMACH**

- All cases were operated through midline incision.
- On Laparotomy

Ascites : 2 patients

Fixity to adjacent structures : 2 patients

Liver secondaries : 4 patients

- Sub total Gastrectomy with Billroth II and jejuno-jejunal anastomosis was done in 8 patients.
- Anterior long loop Gastrojejunostomy was done in 6 patients.

**PATIENTS WITH GASTRIC DUODENAL OBSTRUCTION DUE TO CHRONIC DUODENAL ULCER**

- All patients were posted for laparotomy
- General anesthesia was given for all patients, through midline incision abdomen was opened
- Truncal Vagotomy with short loop posterior Gastrojejunostomy was done in 10 patients

**GASTRIC OUTLET OBSTRUCTION DUE TO OTHER CAUSES**

- There was one patient with Carcinoma head of Pancreas compressing the duodenum causing Gastric outlet obstruction. Anterior loop Gastrojejunostomy was done.

**CONCLUSION:**

- From this study of 25 cases 14 were due to malignancy of the stomach i.e., 56% and 10 cases were due to chronic duodenal ulcer i.e., 40%.
- With the advent of recent anti ulcer drugs the commonest cause of Gastric outlet obstruction is Carcinoma Stomach, which has compared well with the recent studies.
- In Carcinoma Stomach with Gastric outlet obstruction males are 10 in number i.e., 71% and in Chronic Duodenal ulcer with Gastric outlet obstruction males are 7 in number i.e., 70%.
- Commonest age group for Carcinoma Stomach with Gastric outlet obstruction is 51-60 years and Chronic Duodenal ulcer with Gastric outlet obstruction is 41-50 years.
- Oesophago-gastro duodenoscopy (OGD) is a valuable tool in diagnosing all the causes.
- Although proximal Gastric Carcinoma is on rise, Carcinoma Stomach due to pyloric antral growth remains a leading cause of Gastric outlet obstruction

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