Original Research Paper

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General Surgery

A PROSPECTIVE STUDY ON GASTRIC OUTLET OBSTRUCTION - INCIDENCE,DIAGNOSIS AND TREATMENT MODALITIES

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ABSTRACT **Background:** Gastric outlet obstruction (GOO) mechanically impedes gastric emptying.It is a diagnostic and therapeutic challenge for general surgeons in their daily practice.This paper highlights the etiology, clinical presentation and therapeutic outcome of GOO. **Methods:** A prospective study was conducted on patients with GOO treated at Government general hospital, kakinada during the period June 2021 to July 2022 **Results:** Carcinoma stomach with antral growth and cicatrised duodenal ulcer were the most common causes of gastric outlet obstruction.Males were more affected than females (5.6:1).Most common symptoms were vomiting, abdominal pain followed by loss of appetite and weight.Patients of cicatrised duodenal ulcer underwent truncal vagotomy with posterior gastrojejunostomy and malignancy cases underwent definitive procedure. **Conclusion:**Study concludes that gastric outlet obstruction is an important and common surgical condition in tertiary hospital.Malignancy and benign duodenal ulcer being the most common causes.

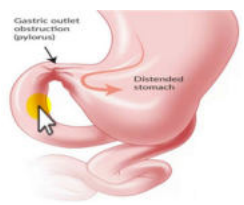
KEYWORDS :

INTRODUCTION

Gastric outlet obstruction (GOO) is the more accurate term for the commonly used term `Pyloric Stenosis' , as the site of obstruction is rarely the pylorus itself. The obstruction is usually in the first part of the duodenum secondary to cicatrized duodenal ulcer or proximally where the diagnosis of carcinoma is most probable. Cicatrized duodenal ulcer is the most common cause of Gastric Outlet Obstruction . Cicatrized duodenal ulcer is more common in South India when compared to the rest of the country .But increased awareness of the disease, change in dietary habits and availability of drugs like H2 receptor blockers and proton pump inhibitors effective eradication of H-pylori have resulted in decreased incidence of patients requiring surgery and also the complications like pyloric stenosis. At the same time the incidence of antral carcinoma of stomach producing gastric outlet obstruction has comparatively increased , which may be due to increased early diagnosis of the condition with the help of flexible fiber optic endoscope .So this study has been taken upto review the changes in incidence and presentation, evaluation methods and management of gastric outlet obstruction in an adult population.

Causes of Gastric outlet obstruction:

Benign	Malignant
Peptic ulcer disease	Gastric cancer
Caustic ingestion	Gastric lymphoma
NSAID induced stricture	Pancreas cancer
Bouveret syndrome	Duodenal cancer
Hypertrophic pyloric stenosis	Cholangiocarcinoma
Iatrogenic	Gallbladder cancer
Post-surgical scar or anastomosis stricture	Metastatic cancer
Endoscopic submucosal dissection	
Endoscopic mucosal resection	
Inflammatory causes	
Crohn's disease	
Pancreatitis	
Inflammatory polyps	
Infectious causes	
Tuberculosis gastroenteritis	
CMV gastroenteritis	
Infiltrative causes	
Eosinophilic gastroenteritis	
Amyloidosis	



Aims and objectives -

1)To find out the exact incidence of Gastric Outlet Obstruction in and around Kakinada.

2)To identify the causes of Gastric Outlet Obstruction in the 30 adult patients coming to Department of Surgery, Government general Hospital kakinada.

3)To evaluate various diagnostic methods available.

4) To access the efficacy of various management strategies adopted for Gastric Outlet Obstruction in the above mentioned adults.

Materials and methods -

Patients for the study were selected from the Surgical units Government general hospital kakinada during the period June2021 to July 2022

Inclusion criteria – 1) One or more of the following clinical features ; projectile vomiting, especially persistent vomiting of undigested food; gastric succession splash heard 3-4 hours after the last meal ; visible gastric peristalsis or presence of a palpably distended and hypertrophied stomach.2) Fasting overnight gastric aspirate more than 200 c.c.

3) Upper Gastro intestinal endoscopy demonstration / Radiological demonstration of gastric outlet obstruction.

4) Demonstration at operation of gross narrowing of the gastric outlet.

5) Patients who are willing to undergo surgery

Exclusion Criteria – 1)Patients who doesn't want to undergo surgery2) Obstruction beyond ligament of Trietz.

Results - Of the 30 cases, 12 cases were secondary to cicatrised duodenal ulcer while the other 13 cases had malignancy of the stomach. In the other 5, 2 cases had periampullary malignancy , 1 alkali induced pyloric stenosis, 1 trichobezoar as the cause for Gastric Outlet Obstruction.

Table-1 :

Causes	No.of patients	Percentage
Carcinoma stomach	13	43%
Cicatrised duodenal ulcer	12	41%
Periampullary carcinoma	02	08%
Corosive	01	04%
Trichobezoar	01	04%

Males are more commonly affected than females and the male – female ratio is 5.6:1 in malignancy.The most common presenting complaints are vomiting (100%), abdominal pain (96.6%)and loss of appetite (46.6%). In malignant cases loss of weight(68.75%) is also a common complaint. Visible gastric peristalsis and succussion splash are more prominent in benign cases when compared to malignant cases.21.8% of the malignant cases presented with mass in the upper abdomen.

The surgical procedure undertaken in all the cicatrised duodenal ulcer patients is truncal vagotomy and posterior gastro jejunostomy and

there is no recurrence of symptoms in any of the cases. Only 8 cases of malignancy could be able to undergo definite surgical procedure. All others underwent palliative procedures. The post-operative mortality rate was 18.7% in malignant cases. No death occurred in benign cases

CONCLUSION -

Since the study has been based on a small number of cases, with a limited follow up, some of the conclusions which can be drawn from this series are as follows: 1) The commonest causes of gastric outlet obstruction in adults are carcinoma stomach producing gastric outlet obstruction (43.3%) and cicatrised duodenal ulcer (41.6%) .2) In the majority of cases, the diagnosis can be established clinically. 3) Upper Gastro intestinal endoscopy should be mandatory in all suspected cases of Gastric Outlet Obstruction as it can diagnose the cause of obstruction very effectively than any other investigative modality.4) Number of cases with cicatrised duodenal ulcer as the chief etiological factor for Gastric Outlet Obstruction is diminishing and the number of cases of antral carcinoma of stomach as the cause of gastric outlet obstruction is increasing.5) Effective treatment in carcinoma stomach depends on early diagnosis. Drawbacks of the present study are as follows :Small number of cases taken up for study.Limited follow up of cases.

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