CASE REPORT

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Metastatic Gastric Carcinoma with Gastric Outlet Obstruction Extirpated by Palliative Gastrojejunostomy

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ABSTRACT

Gastric cancer, third most common cause of death due to cancer and the fifth most common cancer across the world, present with symptoms like early satiety, nausea, vomiting, abdominal pain and loss of weight. The common age of presentation lies between 50 to 70 years. Here, we discuss about a case of a 50years old patient presented with chief complaints of pain in the epigastric region, insidious in onset, gradually progressive, burning in nature and associated with early satiety and bloodstained vomiting. Upper Gastrointestinal Endoscopy (UGIE), Endoscopic biopsy and Contrast Enhanced Computed Tomography (CECT) were in favor of Metastatic Gastric Adenocarcinoma obstructing Gastric Outlet. Considering Gastric outlet obstruction, the patient underwent Palliative Gastrojejunostomy and Postoperative Radio chemotherapy. This case emphasizes the significance about considering palliative surgical care in improving the patient compliance and quality of life.

Keywords: Malignant Gastric Adenocarcinoma, Palliative Gastrojejunostomy, Upper Gastrointestinal Endoscopy

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INTRODUCTION

Gastric Cancer, third most common cause of death due to cancer and the fifth most common cancer across the world.[1] In 2018, 1 million new patients were diagnosed and almost 8,00,000 deaths were recorded among gastric cancer patients. Common initial symptoms of Gastric Carcinoma include early satiety, nausea, vomiting, fatigue (anemia), abdominal pain, and loss of weight.[1] Lauren's criteria classified gastric adenocarcinomas into intestinal, indeterminate and diffuse types, that have different etiology, risk factors, distribution, histology, cellular differentiation, and molecular pathogenetic mechanism. Intestinal cancers are usually sporadic in nature and are related to H. pylori infection. Histopathological examination reveals diffuse-type are poorly differentiated and composed of dis-cohesive cells which are characterized by improper expression of E-cadherin and shows signet ring cells.[2,3]

Surgery is the sole curative treatment, however in advanced conditions, neoadjuvant and adjuvant interventions should be done with surgery. Besides these dynamic approaches, 5-year survival is found to be less than 30%, and overall survival in the metastatic situation is 1 year. There has been the development of many anti-receptor drugs such as trastuzumab, antiangiogenic drug ramucirumab with paclitaxel.[4] These drugs are recommended for patients in stage 2 or 3 as neoadjuvant treatment. And for stage 4 patients as the single main treatment.[3]

The World Health Organization (WHO) defined palliative care as "It is an approach that improves the quality of life of patients and their families facing the problem, through the prevention and relief of suffering employing early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual". It alleviates symptoms and enhances the quality of life in advanced cases, and it should be started as soon as possible, according to WHO recommendations. Early palliative care intervention improves patients' quality of life, according to a research study. Another research found that anytime palliative care is provided, it minimizes the

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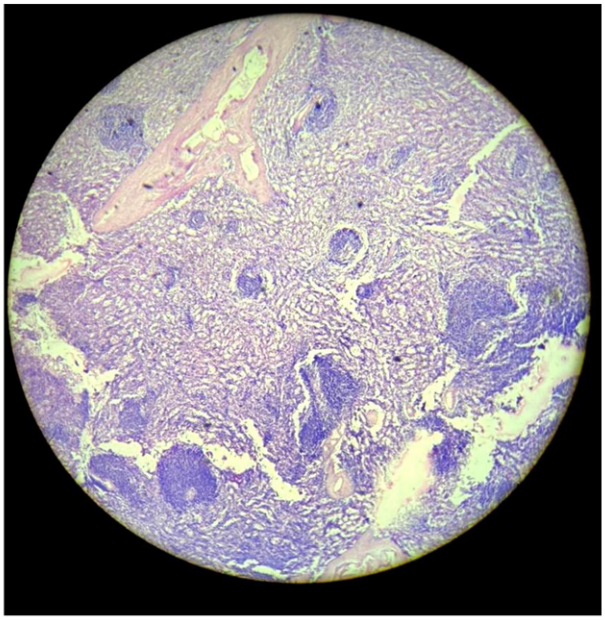

Figure 1. Biopsy revealing Tumor tissue with large irregular glands, nuclear pleomorphism surrounded by desmoplastic stroma.

requirement for intense treatment at the end of life for these patients.[1] In certain cases, early symptom treatment can enhance patients' well-being to the point where they can tolerate anti-cancer medication.

CASE REPORT

A 50-year-old male patient presented to the Gastroenterology outpatient clinic with chief complaints of epigastric pain for the past 2 months, insidious in onset, gradually progressive, burning in nature, and associated with early satiety and multiple blood-stained vomiting. On examination, a hard horizontal oval mass of size 4x2cm was noted in the epigastric region, 4cm above the umbilicus and 10cm below the xiphisternum and mobile craniocaudally.

The workup included Upper Gastrointestinal Endoscopy [UGIE] which revealed an ulcero-proliferative growth of 8mm diameter extending from lesser sac to greater sac in the pyloric antrum obstructing the outlet. An Endoscopic guided biopsy was taken which showed tumor tissue with large irregular glands with moderate pleomorphism, hyperchromatic nuclei, moderately eosinophilic cytoplasm surrounded by desmoplastic stroma **(Figure 1)** suggesting Moderately Differentiated Adenocarcinoma of Stomach. Computed Enhanced Contrast Tomography [CECT] revealed an asymmetric circumferential infiltrative growth of 9mm in the pyloric antrum with enlarged mesenteric lymph nodes measuring 16x10mm **(Figure 2)** suggestive of Metastatic Gastric Adenocarcinoma.

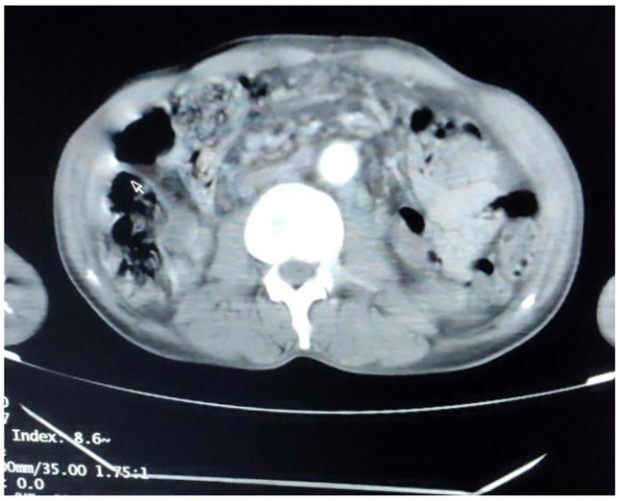

Figure 2. Computed Enhanced Contrast Tomography [CECT] revealed an asymmetric circumferential infiltrative growth of 9mm in the pyloric antrum

The Neoadjuvant Chemotherapy was proposed but considering Gastric Outlet Obstruction a decision was taken to perform Palliative Gastrojejunostomy under General Anesthesia. A Midline Vertical Incision was given and deepened till the peritoneal cavity was reached. A Tumor mass on the stomach extending from lesser curvature to greater curvature in the pyloric antrum region infiltrating the Gastrohepatic and Pancreatic capsule was found and resected. A loop of jejunum 20cm below the Duodenojejunal junction was taken and side to side anastomosed with the greater curvature of stomach above the antrum with Posterior Limbert Sutures and anterior Modified Gambee's Sutures **(Figure 3).**

Specimen of liver metastasis was taken and sent to histopathology. Hemostasis is secured and the wound is closed in layers. Postoperative biopsy revealed liver parenchyma and adjacent tumor tissue composed of cells arranged in solid and acinar patterns lined by cuboidal epithelium. Individual cells are pleomorphic with eosinophilic cytoplasm, hyperchromatic nuclei confirming Metastatic deposits of Adenocarcinoma in the Liver **(Figure 4).** Postoperative period was insignificant and the patient is currently under palliative radio chemotherapy and still under follow-up.

DISCUSSION

Gastric Carcinoma is a multifactorial, heterogeneous, and highly aggressive disease. It is the second leading cause of cancer-related deaths globally, with adenocarcinomas accounting for 90% of all cases. The most prevalent age of onset is 50 to 70 years, and the prognosis is poor, with a 5-year survival rate of about 20% due to late diagnosis.[5] Survival

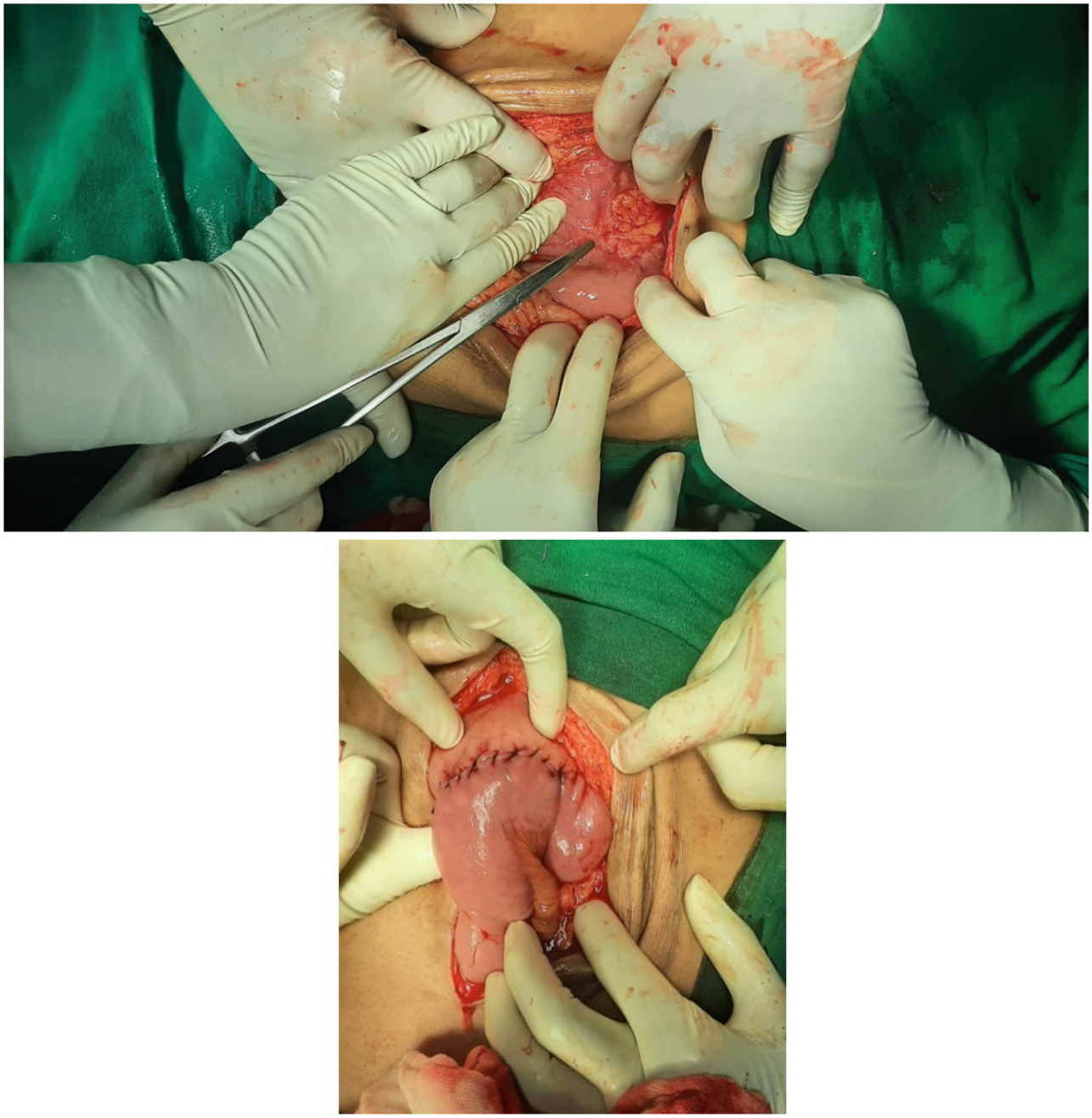

Figure 3. Duodenojejunal junction was taken and side to side anastomosed with the greater curvature of the stomach |Palliative Gastrojejunostomy

rates have improved recently with the advent of Endoscopy leading to early diagnoses and timely management of cancer. In our case, we performed an Upper Gastrointestinal Endoscopy (UGIE) and confirmed the diagnosis by guided endoscopy. Although neoadjuvant chemotherapy was proposed initially, it was decided to perform Palliative Gastrojejunostomy due to Gastric Outlet Obstruction (GOO) as the treatment protocol.

The treatment focuses on clearing the obstruction to resume normal intake and reduce nausea and vomiting. Treatment choices for Gastric Outlet Obstruction should be carefully chosen depending on the location of the tumor, the stage of the malignancy, and the available alternative treatment choices.[6] A research study found that individuals with minimal metastatic disease who had surgery after neoadjuvant chemotherapy had a better prognosis.[3]

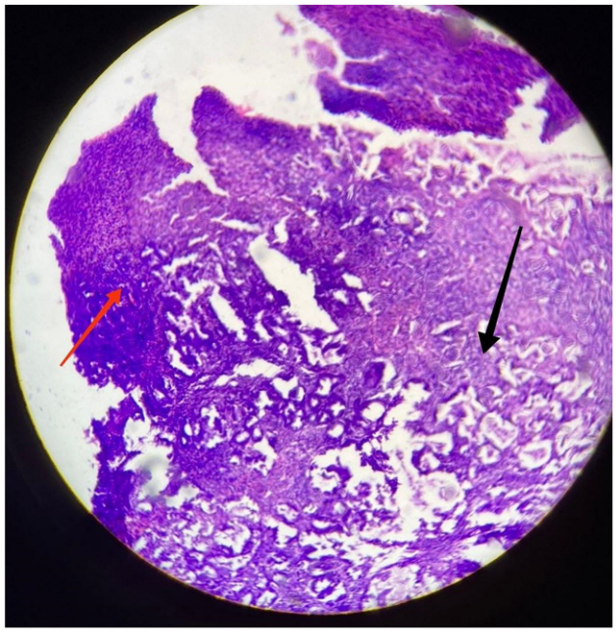

Figure 4. A slide showing Normal Liver Tissue (Red arrow) and tumor tissue arranged in an acinar and solid pattern (Black arrow)

Early intervention with palliative care enhances the quality of life for patients with gastric cancer, according to Scarpi et al.[7] According to a study conducted by Merchant et al., palliative care reduced the need for more rigorous treatment in patients near the end of their lives.[8] According to a research, early palliative care intervention improves patients' quality of life. Another research found that whenever palliative care is provided, it minimizes the requirement for intense treatment at the terminal phase for these patients.[1]

In the case of metastases, a combination of a platinum compound with a fluoropyrimidine agent is Currently one of the established doublets based on a balanced benefit-to-risk ratio.[4] However, targeted chemotherapy remains the cornerstone treatment. Thus, attaining a rational, comprehensive, and personalized diagnosis and treatment plan plays a vital role in providing the greatest clinical benefit to patients.

CONCLUSION

In patients with gastric adenocarcinoma, palliative treatment can successfully reduce symptoms and enhance quality of life. Palliative care has been associated with a decreased likelihood of re-intervention and a longer overall survival rate. Our case demonstrates the importance of seeking surgical treatment even when patients have advanced metastatic cancer in order to enhance the quality of life.

END NOTE

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Conflict of Interest: None declared

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