Colonic Malignancy Masquerading as Gastric Outlet Obstruction: A Case Report

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Colonic malignancy masquerading as gastric outlet obstruction (GOO) is rare. We present a case of invasive colon carcinoma causing GOO in a 28-year-old male. He gave a history of upper abdominal pain for 2 months, nausea, early satiety, vomiting of food particles over 20 days, weight loss of 12 kg, with no other complaints. Examination revealed severe pallor, single enlarged left supraclavicular lymph node, a vague mass palpable in the epigastric region extending into the right hypochondrium, and the presence of succussion splash and ausculto-percussion. Investigations showed hemoglobin of 7.1 g/dl, fecal occult blood test positive, and carcinoembryonic antigen level of 13.92 ng/ml. Esophagogastroduodenoscopy and colonoscopy showed duodenal growth and ascending colon growth, respectively, which was moderately differentiated adenocarcinoma on biopsy. Fine needle aspiration cytology of lymph node showed metastatic adenocarcinoma. Contrast-enhanced computed tomography abdomen clinched the cause as ascending colon mass infiltrating into the 2nd part of duodenum (D2), causing dilatation of stomach and 1st part of duodenum (D1). Mesenteric lymphadenopathy with ascites was also noted.

Keywords: Colorectal cancer, Gastric outlet obstruction, Invasive adenocarcinoma

INTRODUCTION

Colorectal cancers are the 3rd most common cancers globally. Etiopathogenesis is multifactorial and heterogeneous as it arises through multiple molecular carcinogenic pathways. In the 1980s, Fearon Vogelstein’s adenocarcinoma multistep model of colorectal neoplasia represents one of the best-known models of carcinogenesis. Annual incidence rates of colon cancers (per 100,000 population) worldwide show that it is the 3rd (6.6) and 2nd (5.7) most common cancer among males and females, respectively. Compared to India, where it accounts as 8th (4.4) and 9th (3.9) most common cancer in males and females, respectively. Classic symptoms of colorectal cancer are change in bowel habits and bleeding per rectum. Despite screening procedures and adjuvant therapies, 50% of them develop advanced disease. Liver is the most common site of metastasis, followed by lung.

A 28-year-old male presented to the outpatient department with upper abdominal pain for 2 months which was dull aching, intermittent, non-radiating, and aggravated over the last 20 days, with nausea and early satiety. He also had vomiting for the past 20 days, post-prandial, non-bilious, and not blood stained. There was a history of loss of 12 kg over the last 2 months, which was significant. There was no history of abdominal distension, altered bowel habits, fever, or jaundice. This man had a history of appendicectomy 12 years back. On examination, his vitals were temperature - 98.4°F, pulse -78/minute, blood pressure - 110/70 mm Hg, and respiratory rate - 20/min. General examination revealed severe pallor, single enlarged left supraclavicular lymph node measuring 2 cm × 2 cm, fixed and firm in consistency. Per abdomen examination revealed tenderness in the epigastrum, a vague mass palpable in the epigastric region extending into the right hypochondrium, with restricted mobility, moving with respiration, firm in consistency and grossly dilated stomach, which was confirmed by succession splash and ausculto-percussion. Digital rectal examination was normal. Blood investigations showed...
hemoglobin - 7.1 g/dl, total leucocytes count – 8.11/mm³, differential count – 81 neutrophils/5 lymphocytes, platelets – 3.02 lakhs, prothrombin time/international normalized ratio - 11.6/1.03, blood urea nitrogen - 16, creatinine - 0.64, and serum electrolytes - Na 142/K 4.38/CI 109. Liver function tests and level of pancreatic enzymes were normal. There was no biochemical evidence of fluid shifts or dehydration. Urine routine and microscopy were normal. The fecal occult blood test was positive. Carcinoembryonic antigen levels were elevated, 13.92 ng/ml. Erect abdomen X-ray revealed a dilated stomach with gastric bubble. He was subsequently sent for esophagogastroduodenoscopy showed a duodenal growth at the pyloric antrum, and biopsy showed moderately differentiated adenocarcinoma. Colonoscopy showed ascending colon growth with ulceration, which was found to be moderately differentiated adenocarcinoma on biopsy (Figure 1). A contrast-enhanced computed tomography scan, both intravenous and oral, of the abdomen revealed circumferential wall thickening of ascending colon with pericolic fat stranding and the mass in the ascending colon infiltrating the D2 segment of duodenum, located anteromedially (Figure 2), with evidence of narrowing and proximal dilatation of stomach and D1 segment (Figure 3). Mesenteric and para-aortic lymph lymphadenopathy were noted with ascites. Fine needle aspiration cytology of the left supraclavicular node showed metastatic adenocarcinoma. A final diagnosis of gastric outlet obstruction (GOO) secondary to invasive adenocarcinoma arising from ascending colon and transverse colon, Stage IV disease. To relieve the gastric and near-total colonic obstruction, the patient was planned for gastrojejunostomy and ileostomy, respectively, and the option of palliative chemotherapy was also considered.

DISCUSSION

GOO is the clinical and pathophysiological consequence of any symptom complex that produces a mechanical impediment to gastric emptying. In the 1980s, peptic ulcer accounted for 90% of GOO. Currently, with the advent of proton pump inhibitors and Helicobacter pylori eradication regimens, the incidence of peptic ulcer disease has reduced to <5% and malignancies accounting for 80%. Gastric cancers are the most common malignancies causing GOO. Others are ampullary carcinoma, duodenal carcinoma, cholangiocarcinoma, and pancreatic cancers. GOO may also be due to tumor extension from adjacent organs such as pancreas, liver, or gallbladder. Invasion from colonic tumors has not been reported before. Typical symptoms/signs associated with colorectal carcinomas are altered bowel habits, rectal bleeding (hematochezia or melena), otherwise unexplained iron deficiency anemia, and constitutional symptoms. Less common emergency presentations include malignant bowel obstruction, malignant bowel perforation, intussusception, or malignant ascites.

It is very rare for a colon malignancy to present with signs and symptoms of GOO. This may be confused with primary neoplasm of the stomach. However, colonoscopy in our patient showed ulcerated growth in the ascending colon, which aided in the diagnosis. Moreover, contrast-enhanced CT, as a part of the diagnostic workup, revealed findings of an ascending colon growth infiltrating D2 segment. In the published literature, there are no reports of such a presentation of colorectal malignancies. Common sites of spread of colorectal cancers are, in the descending order, regional lymph nodes, liver, lungs, and bone. The presence of right upper quadrant pain, abdominal distention, early satiety, supraclavicular adenopathy, or periumbilical nodules usually signals advanced often metastatic disease. Metastatic disease at presentation is uncommon in colorectal malignancies (<10-15%). In contrast, our patient was a younger male with advanced stage at the time of presentation. Surgical resection of Stage IV primary colonic cancers still remains
controversial. Scoggins reports that no survival advantage is gained by resection of an asymptomatic primary lesion in incurable Stage IV colonic cancer. The 1-year survival rate in these patients is poor.

CONCLUSION

Invasive colon adenocarcinoma to the stomach is an extremely rare clinical entity. A multimodal approach in investigating such patients helps clinch the diagnosis and identifies the primary tumor. The final treatment strategy should be devised considering the extent of metastasis to other organs and the presence or absence of local symptoms.

REFERENCES


How to cite this article: Prakash C, Roshini AP, Govindaraj S, Bahnou S, Pavithra B. Colonic Malignancy Masquerading as Gastric Outlet Obstruction: A Case Report. IJSS Case Reports & Reviews 2017;3(9):11-13.

Source of Support: Nil. Conflict of Interest: None declared.