Fecal Halitosis : A Case Report

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Abstract

There are many causes of fecal halitosis like poor oral hygene, bowel obstruction, GERD, oral malignancy, liver failure etc.Gastrocolic fistula is a rare cause of fecal halitosis. Gastrocolic fistula is a rare complication of adenocarcinoma of the colon. Despite radical resections, these patients usually have a poor prognosis with a mean survival of 23 months and long-term survival is rarely reported. A 40-year-old man of Netrokona district presented with diffuse abdominal pain, vomiting, fecal smell from mouth and weight loss for 3 months. A Barium enema revealed fistulous communication in between left colic flexure upto body of the stomach. Upper gastrointestinal tract endoscopy done repeatedly but report was normal. Colonoscopic report was a growth seen at 60 cm from anal verge and the scope couldn't be passed up. Histopathological report of colonoscopic biopsy was non specific chronic colitis. His part of colon, sleeve resection of stomach were resected en bloc. As per histopathological report, sections from the transvers colon tumor revealed an adenocarcinoma composed of malignant glands with an infiltrative pattern. Adjuvant chemotherapy with capecitabine and oxaliplatin was administered after surgery. Our patient is alive. En bloc resection with adjuvant chemotherapy offers the best treatment option for gastrocolic fistulas. This is one of the patients with greater survival reported in the medical literature.

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Key wards: Halitosis, Adenocarcinoma, En bloc, Resection, Gastrectomy, Gastrocolic fistula.

Introduction

Gastrocolic fistula is a abnormal communications between colon and stomach. This may be caused by benign or malignant conditions of the gastrointestinal tract. The abnormal communication between stomach and intestine is common after gastric surgery in the form of gastrojejunocolic fistula.[1] The gastrocolic fistula is associated with diseases such as benign gastric ulcer, carcinoma stomach, Pancreatitis, Tuberculosis of large gut and inflammatory bowel disease. Most of the patient present with a triad of symptomps like feculent vomiting, diarrhea and weight loss. The cologastric fistula due to carcinoma of transverse colon is very very rare. Fistula formation in neoplasm of the gastrointestinal tract is considered to be caused in two distinct ways. First, the tumour grows contiguously to other organ. Second, the primary tumour develops ulceration with either a peritoneal reaction or an organization of exudate, which then leads to adherence of the adjacent structures and then the eventual perforation into the lumen of the other organ.[1] We here report a case of gastrocolic fistula originating from transverse colon cancer and threated with a en bloc resection followed by adjuvant chemotherapy.[2]

Case presentation

Mr. Sohel Rana , 40 years old, married, muslim, normotensive, non diabetic hailing from Netrokona was admitted to Community based medical college and hospital with the complaints of pain in the left upper abdomen, vomiting, fecal smell from mouth and weight loss for 1 year. Pain was colicky in nature, non radiating, aggravated after taking meal and relieved by medication. At first the frequency of vomiting was one or two times daily but frequency was increased on later period. The vomitus was small in amount and contains the partially digested food particles. Colour, smell was normal and sour in taste.

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For the last one month before admission to hospital vomitus was profuse, fecal coloured and foul smelling. Pain and Vomiting was not associated with fever and jaundice. The patient feels comfort after vomiting. There was weight loss about 10 kg over last one year. He had no history of fever, cough, breathlessness, hemoptysis , hematemesis , melaena, night sweat, bone pain or chest pain. His bowel habit was altered in trends of intermittent diarrhoea but bladder habit was normal. The patient had no history of previous abdominal surgery, inflammatory bowel disease or abdominal trauma. He had no family history of gastrointestinal carcinoma. He had habit of smoking and smoked 10 to 12 sticks cigarettes daily but he is nonalcoholic. he patient is moderately anaemic, cachectic, dehydrated, non icteric, pulse 82 beats per minute, blood pressure 90/60 mm of Hg, respiratory rate 16 breaths per minute.

The size and shape of abdomen was normal, umbilicus centrally placed, flank not full. The patient experienced abdominal pain in response to deep palpation of left hypochondrium and left lumber region of the abdomen. Auscultation revealed exaggerated bowel sound. There was no local rise of temperature, muscle guarding, palpable mass or any organomegaly.

The other system reveals no abnormality. His hemoglobin level was 8.2 gm/dl
ESR : 32 mm in 1st hour, Total count of WBC : 10,000 /cumm
Blood for PBF : Suggestive of combined deficiency, RBS : 5.3 mmol/l,
S. Creatinine : 0.8 mg/dl, HBsAg : Negative
ECG : Within Normal Limit, Chest X ray P/A View : Normal Study
Blood Grouping and Rh typing : B +ve, MT Test: Negative, CEA: 0.91 ng/ml.
Plain X ray of abdomen in erect posture A/P view : Sub acute intestinal obstruction.
Upper GIT Endoscopy (repeatedly done out side our hospital) : Normal upper GIT Endoscopy.

Barium Enema : Suspected fistulous communication in between left colic flexure upto body of the stomach.

Fig : 1

Colonoscopy

A growth seen at 60 cm from anal verge and the scope couldn't be passed up. Histopathological report of colonoscopic biopsy : Non specific chronic colitis.

Next modalities of invastigations was computer tomography (CT) scan of the abdomen, PET scan. But we could not do this invastigations due to poverty of the patient. CT scan and PET scan might be helped us to determine the extention of the disease, involvement of another organ, lymph node status. However, after preparation with proper councelling we done exploratory laparotomy. We found a fistulus communication between splenic flexure of transverse colon and greater curvature of stomach near the fundus with multiple enlarged mesenteric lymph node. Liver, pelvic cavity, peritoneum were free from metastatic deposit. A large fistula communicates between greater curvature of stomach near the fundus and the transvers colon near splenic flexure. We done palliative sleeve resection of stomach en bloc with left hemicolectomy. Then end to end anastomosis with sigmoid colon and transvers colon done. Then thorough peritoneal toileting was done by normal saline and after counting the gauge , mobs and securing blood vessels , abdomen was closed in layers keeping two drain tubes one in the pelvic cavity and another in the

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sub hepatic space. Excised tissue was sent for histopathological examination.

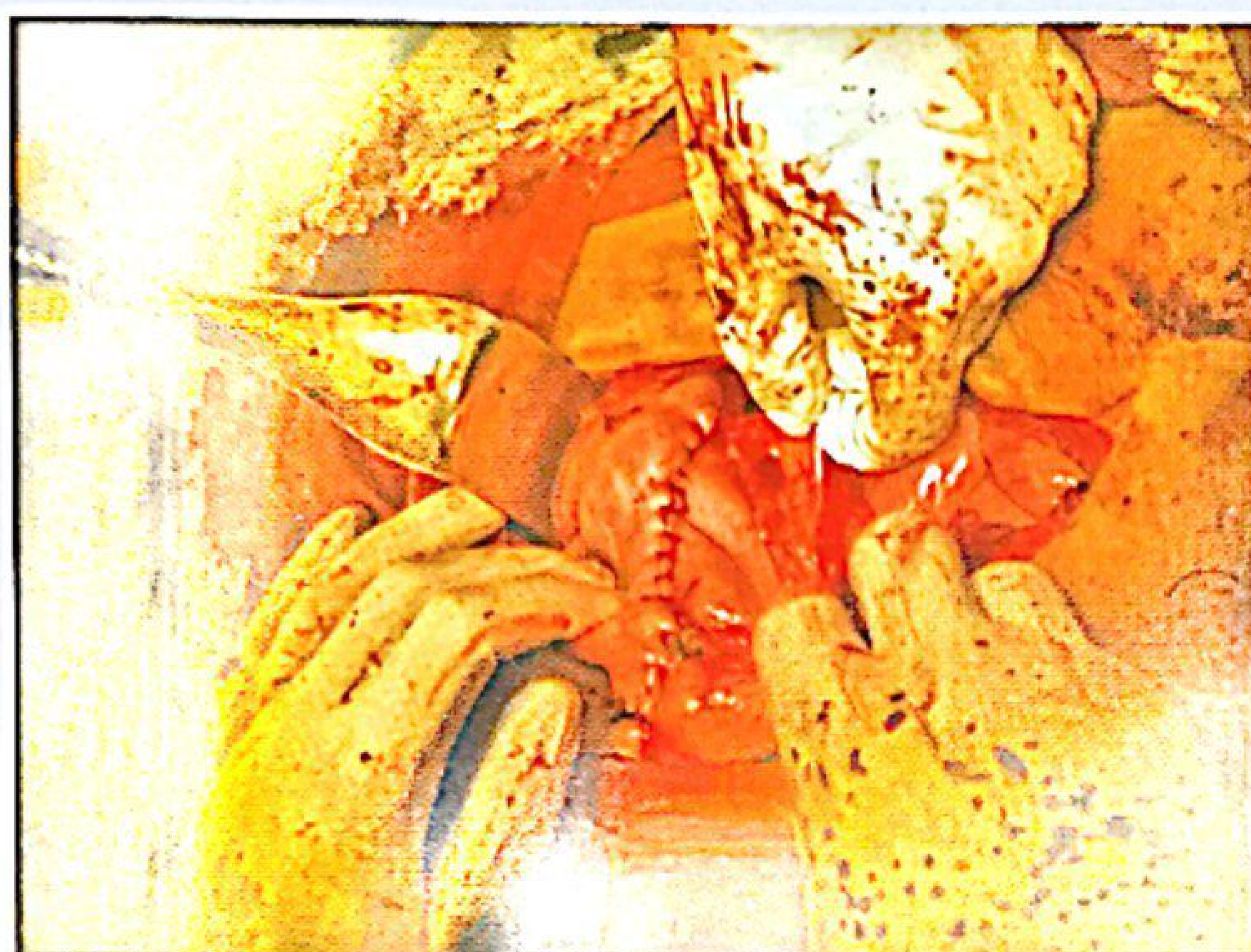

Fig: 2

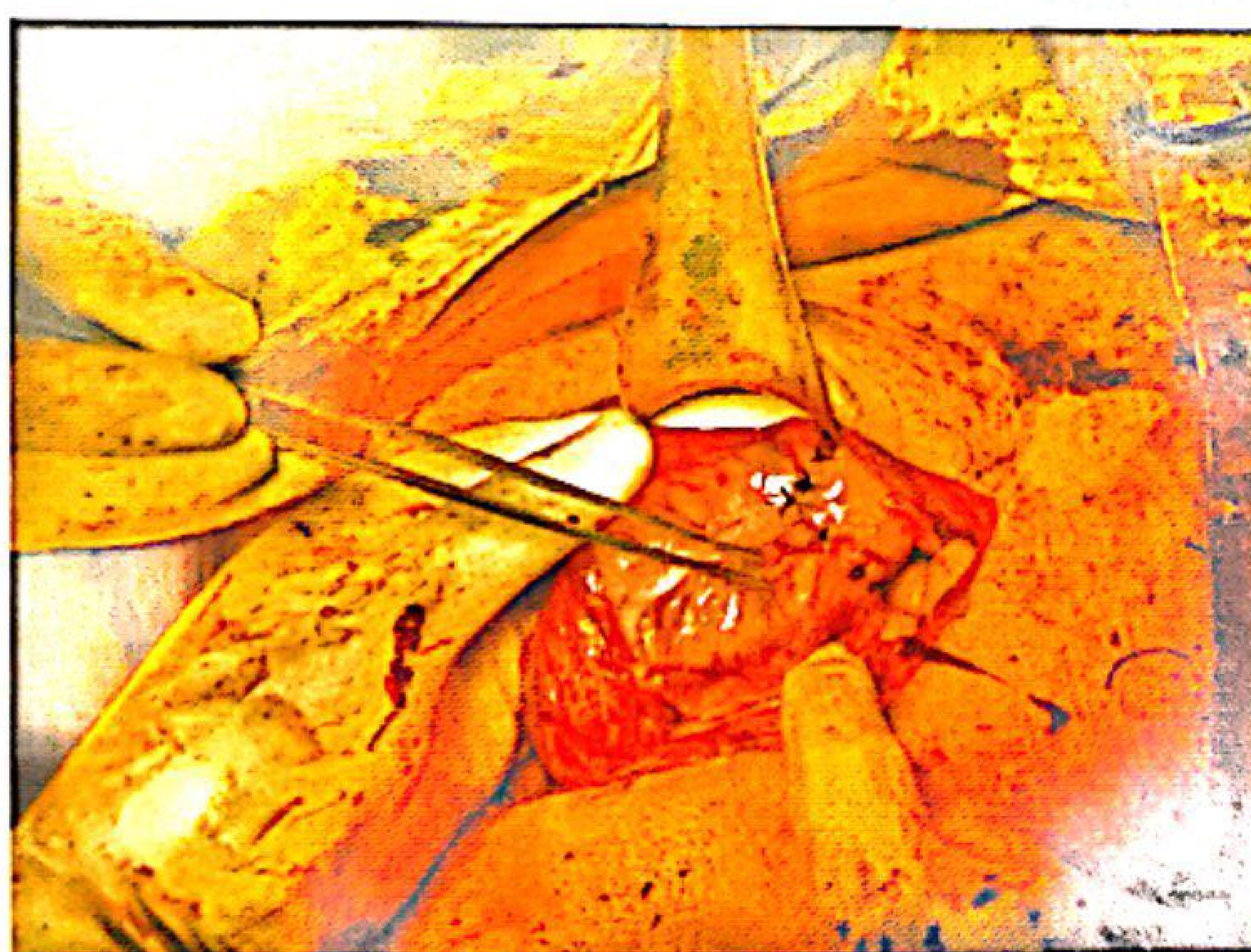

Fig: 3

As per histopathological report, sections from the transvers colon tumor revealed an adenocarcinoma composed of malignant glands with an infiltrative pattern. Tumor invades through the muscularis propria and penetrates serosa. Dense lympho-plasma cystic infiltrates are present.

Sections from the affected part of stomach by tumor also show moderately differentiated adenocarcinoma throughout the wall and resection margin was tumor free . Sections from lymph node are free of tumor metastasis.

Sections from the omental tissue shows presence of tumor.

Pathologic TNM stage: T4b N0

Our patient had good recovery. He had discharged from hospital at 12th post operative day with adviced to consult with oncologist and regular follow up. Adjuvent combination chemotherapy consist of capcitabine and oxaliplatin or folinic acid with irinotecan are good regimen. Follow up schedule was after 6months, after 1 year followed by annually for five years. In each follow up patient should be evaluated by clinical examinations and do some invastigations such as CEA, colonoscopy, CT scan, MRI to early detection of recurrence.

Discussion

Gastrocolic fistula is an uncommon complication of benign and malignant disease of the gastrointestinal tract. In the past neoplasm of the gastrointestinal tract such as adenocarcinoma of the transverse colon(Western countries) and adenocarcinoma of the stomach(Japan), were the most common etiologies of gastrocolic fistula.[1] At present, gastrocolic fistula secondary to colon cancer are very rare, possible due to screening program.[4] Gastrocolic fistula may developed by two ways, one is direct extension of the tumour across the gastrocolic ligament and another is tumor ulcer might cause inflammatory peritoneal reaction leading to adherence and fistula formation[5]. The classic clinical presentation of a gastrocolic fistula is a triad of diarrhea, weight loss and feculent vomiting. Other symptoms are abdominal pain, feculent eructation, fatigue and nutritional deficiencies.[7] In this case, abdominal pain, diarrhea and weight loss were the the main symptoms. Some authors have suggested that a barium enema is the most sensitive method for detecting this type of fistula due to the direction of the flow from the fistula is mostly from the colon to the stomach.[8]

Surgical options for gastrocolic fistula have changed over time, from second- and third-stage surgeries in the 1940s to the current one-stage en bloc resection technique.[1] Practice parameters of the American Society of Colon and Rectal Surgeons stated that at the time of surgery, it is impossible to

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distinguish between malignant and inflammatory adhesions, and recommend that colon cancer adherent to adjacent organs should be resected en bloc.[9]

In a Canadian study, the principles of en bloc resection was violated in more than 50 % of eligible locally advanced adherent colorectal cancers in two provinces, and physicians with fewer years in practice were more likely to perform multivisceral resections than older physicians.[11] Hunter et al., reported that 5-years survival after en bloc resection of colon cancer is higher compared to colectomy with separation of adherent organs (61% versus 23%). In a German study, local recurrence and overall 5-years survival for multivisceral resection for locally advanced colorectal cancer were 11% and 51% respectively.

In a Japanese report of 14 gastrocolic fistulas, mean age was 50 years with a male to female ratio of 10:4; it is similar to our patient, who is male, and 48 years old. The fistulous formation between the distal half of the transverse colon and the greater curvature of the stomach was seen in 13 of 14 cases (93 %), similar to ours. These patients usually have a poor prognosis; the mean survival is 23.4 months (range, 3 to 112). As far as we know, the longest disease free survival reported in the medical literature for a malignant gastrocolic fistula belongs to a 24-year's old woman, who survived for more than 10 years. Our patient is now well and good. We hope for the best.

Conclusions

Gastrocolic fistula is a rare complication of adenocarcinoma of the colon. En bloc resection with adjuvant chemotherapy offers the best treatment option for gastrocolic fistulas.

References

1. *Omar VF, Ylse GG, María LB, Carlos R,et al. Gastrocolic fistula secondary to adenocarcinoma of the transverse colon: a case report. Journal of Medical Case Reports (2015) 9:263.*
2. *Lim CH, Kim SW, Kim JS, Cho YK, Park JM, Lee IS, et al. Successful palliation of a gastrocolic fistula secondary to gastric cancer by insertion of a covered colonic stent. Gastrointest Endosc. 2011;73:1314–17.*
3. *Lee LS, Foo CS, Chen CM, Poh CC. Gastrocolic fistula: a rare complication of gastric carcinoma. Singapore Med J. 2009;50:e274–76.*
4. *Buyukberber M, Gulsen MT, Sevinc A, Koruk M, Sari I. Gastrocolic fistula secondary to gastric diffuse large B-cell lymphoma in a patient with pulmonary tuberculosis. J Natl Med Assoc. 2009;101:81–3.*
5. *Hoffman RN. Gastrocolic fistula and gastric ulcer with prolonged glucocorticoid therapy. JAMA. 1966;195:493–94.*
6. *Kumar GK, Razzaque MA, Naidu VG, Barbour EM. Gastrocolic fistulae in benign peptic ulcer disease. Ann Surg. 1976;184:236–40.*
7. *Hansen CP, Christensen A, Thagaard CS, Lanng C. Gastrocolic fistula resulting from chronic pancreatitis. South Med J. 1989;82:1309–10.*
8. *Marshall SF, Knud-Hansen J. Gastrojejunocolic and gastrocolic fistulas. Ann Surg. 1957;145:770–82.*
9. *Matsuo S, Eto T, Ohara O, Miyazaki J, Tsunoda T, Kanematsu T. Gastrocolic fistula originating from transverse colon cancer: report of a case and review of the Japanese literature. Surg Today. 1994;24:1085–9.*
10. *Amlicke JA, Ponka JL. Gastrocolic and gastrojejunocolic fistulas. A report of sixteen cases. Am J Surg. 1964;107:744–50.*
11. *Forshaw MJ, Dastur JK, Murali K, Parker MC. Long-term survival from gastrocolic fistula secondary to adenocarcinoma of the transverse colon. World J Surg Oncol. 2005;3:9.*
12. *Mathewson Jr C. Preliminary colostomy in the management of gastrocolic and gastrojejunocolic fistula. Ann Surg. 1941;114:1004–10.*
13. *Otchy D, Hyman NH, Simmang C, Anthony T, Buie WD, Cataldo P, et al. Practice parameters for colon cancer. Dis Colon Rectum. 2004;47:1269–84.*

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14. Govindarajan A, Fraser N, Cranford V, Wirtzfeld D, Gallinger S, Law CH, et al. Predictors of multivisceral resection in patients with locally advanced colorectal cancer. Ann Surg Oncol. 2008;15:1923–30.

15. Hunter JA, Ryan Jr JA, Schultz P. En bloc resection of colon cancer adherent to other organs. Am J Surg. 1987;154:67–71.

16. Lehnert T, Methner M, Pollok A, Schaible A, Hinz U, Herfarth C. Multivisceral resection for locally advanced primary colon and rectal cancer: an analysis of prognostic factors in 201 patients. Ann Surg. 2002;235:217–25.

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