

Exophytic Colon Cancer: Resemblance to a Gastrointestinal Stromal Tumor of the Stomach:

A Case Report¹

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An exophytic adenocarcinoma of the colon is very rare with only a few reports to date. To the best of our knowledge, the CT appearance of colon cancer, which simulated the classic appearance of a GIST has only been reported once in the world's literature. We recently evaluated a patient with a large lobulated mass involving the stomach, pancreas and colon. The CT appearance of the case was consistent with the diagnosis of an exophytic gastric GIST. However, at surgery, the patient was found to have a large ulcerated carcinoma of the colon near the splenic flexure that had invaded the stomach and pancreas. We report a case of an exophytic adenocarcinoma of the colon that resembled the classic appearance of a gastrointestinal stromal tumor of the stomach.

Index words : Colon neoplasms
Gastrointestinal stromal tumors
Tomography, X-ray computed

A large ulcerated exophytic mass involving the stomach is the classic CT finding of a gastrointestinal stromal tumor (GIST) (1). An exophytic adenocarcinoma of the colon is very rare with only a few reported cases (2, 3). To the best of our knowledge, the CT appearance of colon cancer which simulated the classic appearance of a GIST has only been reported once in the world's literature (2). Here we present another such similar case.

Case Report

A 62-year-old male patient was admitted to the hospi-

tal complaining of dizziness. The patient's hemoglobin level was 10.1 g/dL (13-17 g/dL) and a negative occult blood stool test. In addition, the patient's serum carcinoembryonic antigen was 1.3 ng/mL (0-5 ng/mL). A gastrofiberscopy was performed, which demonstrated a fungating mass with exudates in the posterior wall of the gastric upper body (Fig. 1A). A biopsy of the fungating mass with the gastrofiberscopy revealed no evidence of malignancy, chronic active gastritis with intestinal metaplasia or ulcer with necrosis. A colonofiberscopy demonstrated an ulcerated lobulated mass in the distal transverse colon (Fig. 1B). A biopsy of the mass along with a colonofiberscopy revealed an ulcer with inflammatory debris, chronic active inflammation and no evidence of malignancy. A contrast-enhanced multidetector-row CT (Somatom Sensation 64; Siemens, Erlangen, Germany) revealed an approximately 13.8 × 7.3 cm lobulated heterogeneous enhancing mass with a smooth margin in the left upper abdomen located between the

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stomach and splenic flexure of the colon (Figs. 1C–F). The CT appearance was most suggestive of an exophytic gastric GIST. Moreover, the tail portion of the pancreas was invaded by the mass. The proximal colon was not dilated and no definite evidence of lymphadenopathy was observed.

The patient underwent surgical treatment, which included a wedge resection of the stomach, segmental resection of the transverse colon, distal pancreatectomy and splenectomy.

The final pathology findings were a moderately differentiated adenocarcinoma of the colon which invaded the stomach and pancreas, and no evidence of lymph

node metastasis (Fig. 1G).

Discussion

An exophytic mass of the gastrointestinal tract is characteristic of a gastric GIST. To date, only two cases have been reported with bulky exophytic colon cancer resembling leiomyosarcoma upon a CT scan (2). However, in these two cases, the CT revealed a gastrocolic fistula. The site of the fistula revealed that the propensity for the left portion of the transverse colon to be involved may be related to its anatomical relationship; the distal three-fifths of the transverse colon lies immediately be-

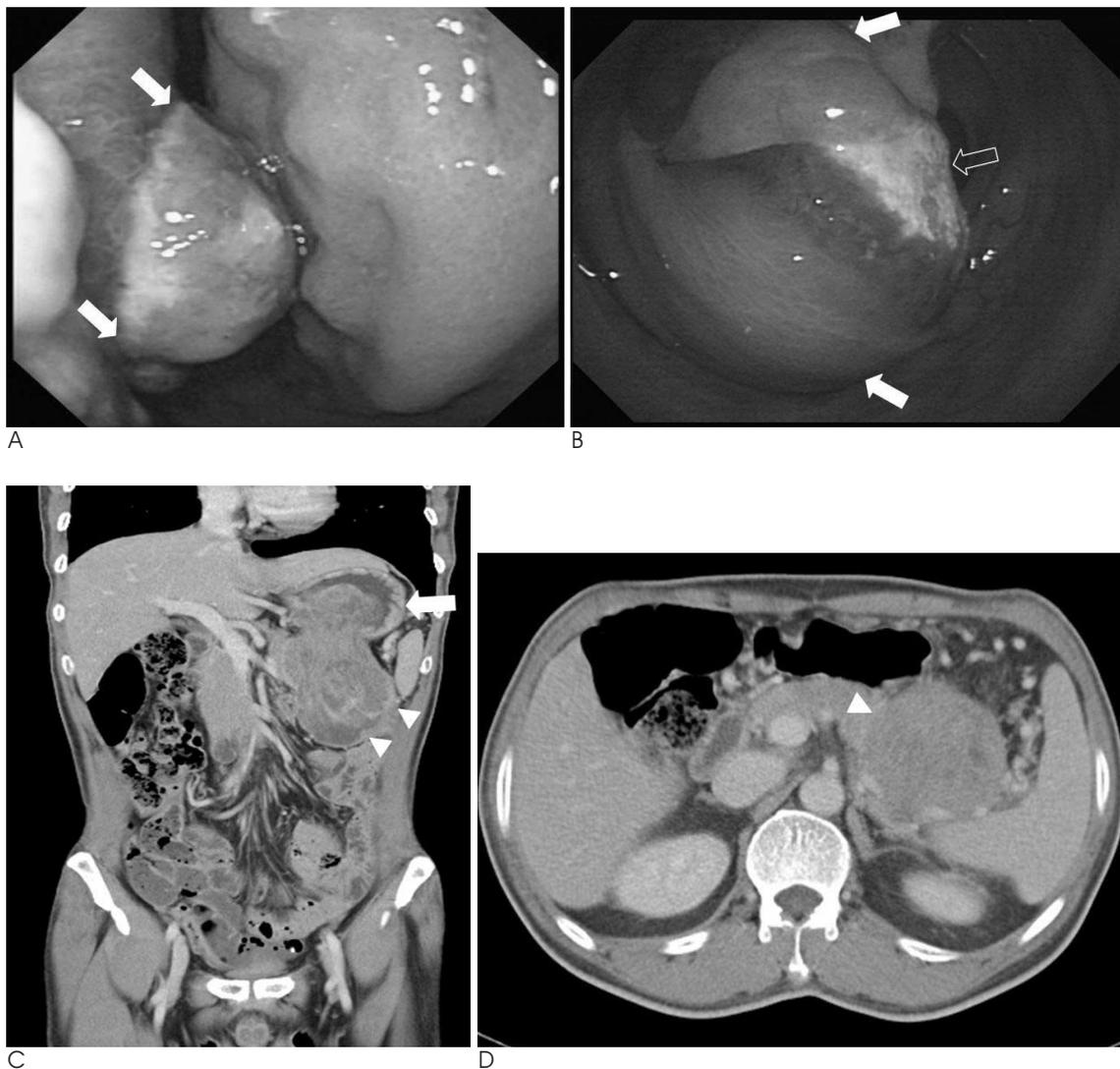


Fig. 1. A 62-year-old man presenting with dizziness.

A. A gastrofiberscopy shows a large lobulated mass with exudates (white arrows) in the posterior wall of the gastric upper body.

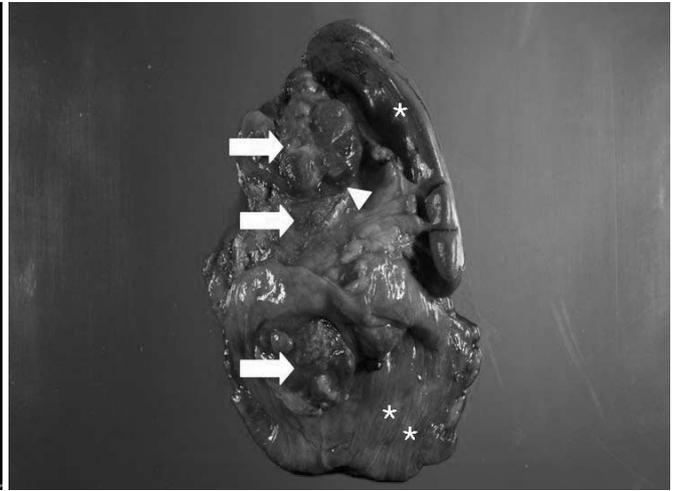
B. A colonofiberscopy shows a protruding mass (white arrows) with ulceration (open arrow) in the distal transverse colon.

C. An enhanced CT scan of the abdomen shows a 13.8 × 7.3 cm lobulated heterogeneous enhancing mass with a smooth margin in the left upper abdomen located between the stomach (white arrow) and splenic flexure of the colon (white arrow heads) on the coronal view. The colonic wall is thickened and shows a wide angle between the mass.

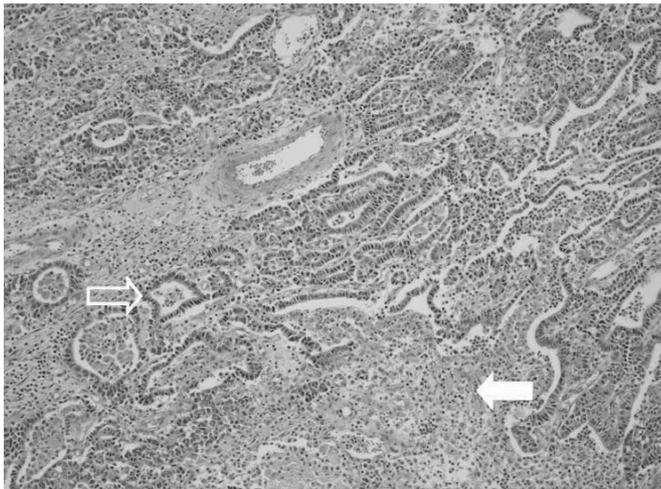
D. The tail portion of the pancreas is compressed by the mass (white arrow head).



E



F



G

FIG. 1. E. The heterogeneous enhancing mass (open arrow head) is also protruding into the lumen of the splenic flexure in the colon (white arrow heads).
 F. The gross findings reveal a lobulated tumor (white arrows) between the colon (two asterisks) and stomach (white arrow head) by the surgical wedge resection of the stomach, segmental resection of the distal tranverse colon and the splenectomy (asterisk).
 G. The microscopic findings reveal that the tumor shows gland formation (open arrow) with severe necrosis (white arrow) (H & E, $\times 100$).

low the greater curvature of the stomach. In addition, the greater omentum between them is very short (4-6). Because a gastrocolic fistula has not been reported to occur with a GIST, Lee et al. (2) suggested that a bulky mass between the stomach and colon, with a gastrocolic fistula, should first suggest an adenocarcinoma of the stomach or colon. However, in our case, the fistula formation of the mass between the colon and stomach was not resolved on the CT or pathologic findings. In addition, the colon located proximal to the mass was not dilated and showed no distinct evidence of periregional lymphadenopathy.

In many cases of gastric GIST, the bulk of the tumor will be in an extragastric location, which makes it difficult to determine the origin of the tumor from the gastric wall on CT images (7). Levy et al. (7) suggested that the tumor may be attached to the gastric wall by a thin pedicle and that careful evaluation of the gastric wall in these cases may reveal subtle wall thickening that will

help establish the stomach as the origin of the mass. In our case, we believe that the mass originated from the colon because of the lack of definite gastric wall thickening around the exophytic growing mass on CT in addition to the wide angle between the mass and the colon and the colonic wall thickening. Also, we think that the differential diagnosis between a GIST and an exophytic colon cancer is important when making a decision of the tumor's stage and origin.

An exophytic sigmoid colon cancer resembling an ovarian tumor was previously reported and the author cited the difficulty of determining the origin of the tumors that presented as a pelvic mass, however the examination of the relationship of the venous anatomy such as the inferior mesenteric vein, the gonadal vein and the mass on the CT, provided useful information. However, in our case, the large exophytic mass compressed the surrounding vessels, including the splenic vein and multiple omental collateral vessels. Therefore,

the examination of the relationship between the venous anatomy and the mass on the CT did not provide useful information with regard to the origin of the mass.

The differential diagnosis of a gastric GIST includes other mesenchymal neoplasms such as true leiomyomas, leiomyosarcomas, schwannomas, neurofibromas, and neuroendocrine neoplasms. Because all of these neoplasms develop in the gastric wall, their imaging features may be similar to those of a GIST (7).

Here we have reported a rare case of exophytic colon cancer resembling a gastric GIST and, although this case was rare, the differential diagnosis of a gastric GIST should include the possibility of an exophytic colon cancer.

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위에서 발생한 위장관 간질종양과 유사한 모습을 보이는 외장성 대장암: 1예 보고¹

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대장의 외장성 선암은 매우 드물게 보고되고 있다. 저자들이 아는 한 위장관 간질종양과 유사한 모습을 보이는 대장암의 전산화 단층촬영 소견은 단 한번 보고 되었다. 저자들은 최근 위, 췌장 그리고 대장을 침범한 커다란 종괴가 있는 환자를 검사하였다. 이 환자의 컴퓨터 단층 촬영 소견은 위에서 기원한 외장성 간질종양의 모습이었으나 수술 상 대장에서 기원한 커다란 궤양성 암이 위와 대장을 침범한 것으로 확인되었다. 저자들은 위에서 발생한 위장관 간질종양의 전형적인 모습과 유사한 대장에서 발생한 외장성 선암 1예를 경험하여 보고하고자 한다.