

## Symptomatic Extraluminal Gastric Gist: Uncommon Presentation of an Uncommon Cancer: Case Report and Literature Review

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### Research Article

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### Abstract

73-year-old lady with a left moderately differentiated T1aN0MO estrogen positive, progesterone positive and non-overexpressing Her-2-neu infiltrating ductal carcinoma treated with mastectomy and adjuvant anastrozole who reported left upper abdominal discomfort. Her Oncotype DX predicted a risk of relapse with of 18% with hormonal therapy. The abdominal discomfort was episodic but occurred more frequently after eating. She had no weight loss, nausea, vomiting, diarrhea, constipation, hematochezia or melena. She had no history of peptic ulcer disease or gastroesophageal reflux. Her preoperative CT of the abdomen revealed a 2.9cm exophytic mass on the greater curvature of the stomach. Laparoscopic biopsy revealed a 4cm mass arising from the muscularis of the stomach but extending beyond the gastric serosa. Pathologic review revealed gastrointestinal stromal tumor with a low mitotic index.

**Keywords:** Gist, Metastases, Breast, Stomach, Pain.

**Abbreviations:** GIST: Gastrointestinal Stromal Tumor; GI: Gastrointestinal; CT: Computed Tomography.

### Introduction

GIST are uncommon but they are the most common sarcoma of the GI tract. GIST arises from Cajal cells [1,2]. Most of these cancers arise in the stomach. Pain, obstructive symptoms and bleeding symptoms may give away their presence. Typically, the tumor mass will be intraluminal [3]. The patient in this report was diagnosed with breast cancer 8 years prior to the onset of her abdominal symptoms. A CT of the chest done by her Primary Care Physician one year prior to surgery demonstrated a 2.8cm mass on the greater curvature of the stomach. However, the patient had no symptoms of abdominal discomfort at that time. She had reported anterior chest wall pain and was seen in consultation by Cardiology and had a negative exercise stress test. The chest CT was done since her anterior chest wall pain persisted. She developed left upper abdominal discomfort months after this initial CT. Her abdominal discomfort was distinctly different by her account from her anterior chest wall pain.

### Materials and Methods

73-year-old lady with a left moderately differentiated T1aN0MO estrogen positive, progesterone positive and non-overexpressing Her-2-neu infiltrating ductal carcinoma treated with mastectomy and adjuvant anastrozole who reported left upper abdominal discomfort. adjuvant anastrozole who reported left upper abdominal discomfort. Her Oncotype DX predicted a risk

of relapse without adjuvant treatment of 31%. Adjuvant hormonal therapy was predicted to reduce her risk of relapse to 18% with only a 1% better risk of relapse if adjuvant chemotherapy was added to the hormonal therapy. The upper abdominal discomfort was episodic but occurred more frequently after eating. She had no weight loss, nausea, vomiting, diarrhea, constipation, hematochezia or melena. She had no history of peptic ulcer disease or gastroesophageal reflux. At the time of her complaints of abdominal discomfort, her anterior chest wall pain had been resolved for 6 months. She did not take ibuprofen or similar agents when she had anterior chest wall pain. Her discomfort did not improve with famotidine taken twice a day by mouth. Her preoperative CT of the abdomen revealed a 2.9cm exophytic mass on the greater curvature of the stomach. Laparoscopic biopsy revealed a 4cm mass arising from the muscularis of the stomach but extending beyond the gastric serosa. There was no intraluminal component for the GIST. Pathologic review revealed gastrointestinal stromal tumor with a low mitotic index. Her symptoms resolved with resection of the tumor, the GIST.

### Results and Discussion

Breast cancer metastases to the stomach have been well documented. Outside of liver metastases the stomach is the site in the gastrointestinal tract with the highest proportion of breast cancer metastases. There is a large difference between the number of stomach metastases observed at autopsy and

those found in antemortem studies. Stomach metastases have been noted anywhere from 6-8.2% to up to 13-15% of autopsies on breast cancer patients [4,5]. Clinical symptoms are lacking in most patients. Symptoms when present include anorexia, nausea, vomiting and epigastric discomfort. At autopsy the stomach metastases may present as only a microscopic finding, multiple intramural nodules. Large intramural mass invading all layers of the stomach and a linitis plastica presentation. The interval between breast cancer diagnosis and recognition of stomach metastases is usually less than 5 years [4,5]. Almost all stomach metastases had retrocrural, celiac, paraaortic or peripancreatic lymph node involvement [6]. The most common histology is lobular carcinoma. Abdominal discomfort, obstructive symptoms and bleeding symptoms may signal the presence of GIST. The vast majority of GIST are intraluminal tumors arising in the stomach or small intestine [1,2].

### Conclusions

Breast cancer metastases to the stomach are uncommon enough that biopsy proof of disease is mandatory. In this patient an uncommon cancer, GIST, presenting in an uncommon fashion, extraluminal, was the cause of the patient's abdominal symptoms. Coexistence of breast and GIST tumors have only rarely been reported before this case. The most common secondary cancers with primary breast cancer are lung, colorectal and uterine [7]. Coexistence of breast and GIST tumors have only rarely been reported before this case. Most of these second cancers occurred within 5 years of the initial cancer. Interestingly enough GIST as a second cancer will be the cause of death in 40% of patients as compared to less than 3% with GIST as the primary diagnosis [8]. Assuming the mass on the greater curvature of the stomach was a metastasis from breast cancer would have resulted in inappropriate treatment and delay in diagnosis of the GIST. Hemorrhage from GIST can be substantial [9].

### Acknowledgements

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### Conflict of interest

Authors declare that there are no conflict of interest.

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