



ORIGINAL RESEARCH PAPER

General Medicine

**PRIMARY GASTRIC MELANOMA:
UNEXPLAINED ABDOMINAL PAIN AND
WEIGHT LOSS WITH GASTRIC MASS NOTED ON
INITIAL COMPUTED TOMOGRAPHY.**

KEY WORDS: gastric mass, lymphadenopathy, endoscopy, primary gastric melanoma

Tanya Gupta*

Junior Doctor National Health Services, England *Corresponding Author

ABSTRACT

66 years old gentleman presented with nonspecific abdominal pain symptoms and weight loss to the primary care physician. He was referred to the gastroenterology department after C'T abdomen pelvis showed a a gastric mass with lymphadenopathy. Further endoscopy and immunochemistry revealed primary gastric melanoma to be the diagnosis.

INTRODUCTION

Melanoma represents 1-3% of all malignant cancers and typically appears in sites where melanocytes are commonly found such as skin, eyes, meninges, anal region, and most commonly in the rectum and sigmoid colon. Primary gastric melanoma are a rare type of cancer, and most melanomas identified in the stomach represent metastasis from cutaneous sources.

Case Study

A 66-year-old male patient with a background of renal artery aneurysm presented with a 4-week history of abdominal pain and significant weight loss to the GP. General practioner requested a 2 - week wait investigation which included computed tomography (CT) of the abdomen and pelvis and extended to chest.

Investigations

CT abdomen and pelvis showed abdominal lymphadenopathy along the lesser curvature of the stomach and the coeliac axis (Figure 1) raising suspicion of gastric malignancy. Imaging was extended to thorax. Subsequent CT showed lung lesion as well as the lesion within stomach.

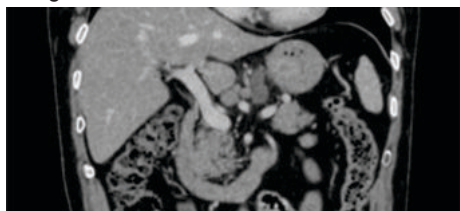


Figure 1: Lymphadenopathy Along Lesser Curvature Of Stomach

Following the findings on the CT scan, endoscopy was subsequently conducted, revealing a large 30mm nodular submucosal lesion in the proximal body of the stomach on the lesser curvature (Figure 2). There were surface ulceration on white light and small surface cork screw vessels on narrow band imaging, suggestive of a neuro-endocrine tumor with malignant trasnformation.

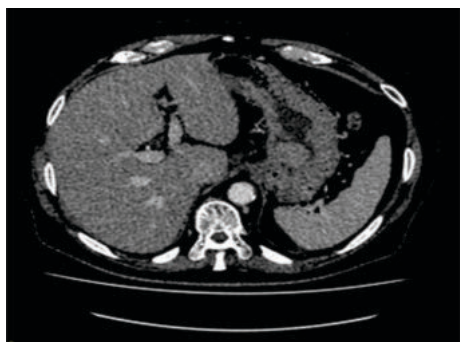


Figure 2: Axial CT Showing Mass Along Lesser Curvature

Immunohistochemistry was done, which established a diagnosis of gastric melanoma. (Figure 3)

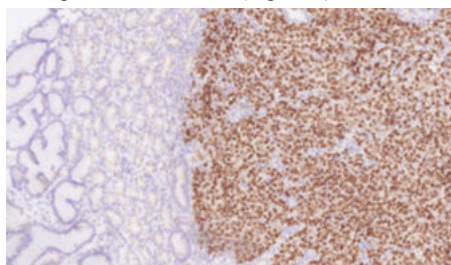


Figure 3: Positive Immunostaining With S100 Protein

DISCUSSION

Melanoma is an aggressive cancer type commonly seen where melanocytes are present, which include the skin, eyes, meninges, and anal region. Gastrointestinal melanoma is most often the result of metastatic disease, with up to 60% of patients with metastatic melanoma having gastrointestinal (GI) involvement on autopsy.^[1,2]

Primary Gastric Melanoma is extremely rare, with very cases being described thus far. Abdominal pain, weight loss, hematemesis, malaena and occasionally anemia are the common presenting symptoms.^[3]

Imaging played a key role in diagnosis, common CT features include a discrete mass in the body of the stomach or gastric wall thickening and surrounding lymphadenopathy.^[4] They may also enhance on contrast studies given the melanomas are vascular. However, CT cannot differentiate between gastric melanoma and other gastric tumours.^[4]

MRI features of melanoma are highlighted by melanin which is paramagnetic. On T1, lesions appear hyperintense whereas on T2, they are hypointense. Furthermore PET/CT with fluorodeoxyglucose ¹⁸F (FDG) is useful for staging, localizing distant spread.^[4]

This case was further investigated with upper gastrointestinal endoscopy (Figure 2) and diagnosis of gastric melanoma was confirmed by biopsies and positive immunostaning with S-100 protein (Figure 3) and premelanosome glycoprotein monoclonal antibody HMB-45.^[5]

Gastric melanoma is a rare malignant tumor of the digestive system with poor prognosis.^[6] Early detection is the key for management. However, most melanomas present with metastasis given their vague presentation. Systemic treatment can be considered if suitable, otherwise palliative radiotherapy is an option for control symptoms.

REFERENCES

1. Dasgupta T, Brasfield R. Metastatic melanoma. A clinicopathologic study. *Cancer* 1964;17:1323-39. [PubMed] [Google Scholar]
2. Shenoy S, Cassim R. Metastatic melanoma to the gastrointestinal tract: role of

- surgery as palliative treatment. *WV Med J* 2013;109:30-3. [PubMed] [Google Scholar]
3. Schizas D, Tomara N, Katsaros I, Sakellariou S, Machairas N, Paspala A, Tsilimigras DI, Papanikolaou IS, Mantas D. Primary gastric melanoma in adult population: a systematic review of the literature. *ANZ J Surg.* 2021 Mar;91(3):269-275. doi: 10.1111/ans.16160. Epub 2020 Jul 20. PMID: 32687691.
 4. Mellotte GS, Sabu D, O'Reilly M, McDermott R, O'Connor A, Ryan BM. The challenge of primary gastric melanoma: a systematic review. *Melanoma Manag.* 2020 Nov 23;7(4):MMT51. doi: 10.2217/mmt-2020-0009. PMID: 33318781;PMCID:PMC7724652.
 5. Schuchter LM, Green R, Fraker D. Primary and metastatic diseases in malignant melanoma of the gastrointestinal tract. *Curr Opin Oncol.* 2000;12:181-5
 6. Sachs DL, Lowe L, Chang AE, et al. Do primary small intestinal melanomas exist? Report of a case. *J Am Acad Dermatol* 1999;41:1042-4. doi:10.1016/S0190-9622(99)70273-2 [PubMed] [Google Scholar]