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Metastatic melanoma presenting as a perforated small bowel

Barsak perforasyonuna yol açan metastatik ince barsak malign melanomu

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A rare cause of malignant small bowel tumor is presented. Malignant melanoma, most likely metastatic, was diagnosed during emergency laparotomy for acute peritonitis caused by a perforated small bowel tumor. This case report emphasizes the need for a careful work-up of "non-specific" abdominal symptoms in patients with a medical history of cutaneous malignant melanoma, even after years of tumor-free follow-up.

Key words: Metastatic malign melanoma, small bowel, abdominal pain

Bu vaka takdiminde nadir bir ince barsak malign tümörü sunulmuştur. Perfore ince barsak tümörüne bağlı gelişen akut peritonit sonucu yapılan acil laparotomide metastatik olması çok muhtemel ince barsak malign melanomu saptanmıştır. Bu vaka, yıllar öncesine ait dahi olsa, malign melanom öyküsü olan bir hastada "non-spesifik" karın ağrılarının dikkatle tetkikinin önemine işaret etmektedir.

Anahtar kelimeler: Metastatik malign melanom, ince barsak, karın ağrısı

INTRODUCTION

Primary tumors of the small bowel are rare, accounting for only 2-3% of gastrointestinal (GI) tumors. The incidence of benign versus malignant tumors is nearly even, unless the patient is symptomatic. In the presence of clinical symptoms, malignant tumor is roughly three times more likely. Small bowel primaries, in order of relative frequency, include carcinoid (often seen in the terminal ileum; profound desmoplastic reaction and calcification are typical), adenocarcinoma, lymphoma (often causes aneurysmal dilatation of the bowel), GI stromal tumor, vascular malignancy, and fibrosarcoma. Metastatic disease of the small bowel, on the other hand, is relatively common. Metastatic melanoma is the most common metastatic tumor found in the GI tract (GIT).

CASE REPORT

We report a case of a 79-year-old female who was referred by her general practitioner to the surgical team with a one-month history of abdominal pain in her left iliac fossa associated with occasional diarrhea, weight loss over four months and a reduced appetite. Past medical history consisted of hypertension, previous appendectomy and a hiatus hernia.

Examination revealed tenderness and fullness in the left iliac fossa, but was otherwise normal.

Contrast-enhanced computerized tomography (CT) scan of the pelvis/abdomen revealed a paracolic collection, poorly enhancing mass lesion in the left iliac fossa and liver lesions reported as multiple liver abscesses (Figures 1, 2). A colonoscopy followed to reveal diverticulitis in the sigmoid colon and descending colon. Based on patient age, her history, examination findings and the results of the investigation, the patient was diagnosed as acute diverticulitis with multiple liver abscesses.

The patient improved with antibiotics over a course of 10 days and was discharged with a follow-up CT scan arranged for one-month post-discharge. However, 10 days' post-discharge the patient returned on emergency basis with acute onset of severe generalized abdominal pain and vomiting.

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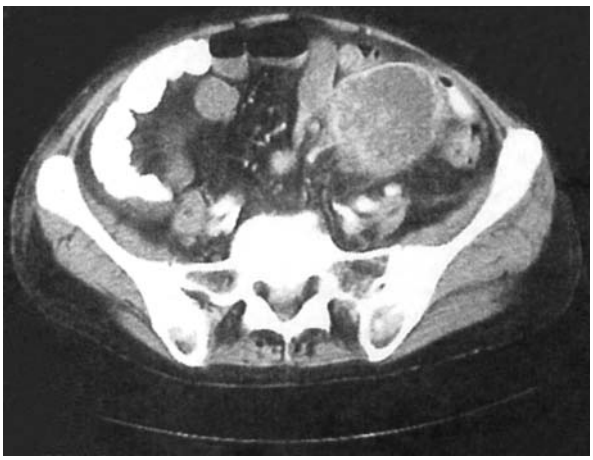

Figure 1. CT scan of the pelvis/abdomen revealed a paracolic collection, and poorly enhancing mass lesion in the left iliac fossa

The clinical picture was consistent with generalized peritonitis.

An emergency laparotomy was conducted that revealed a perforated small bowel tumor (10x10 cm) in the jejunum, 30 cm from the duodenum-jejunal flexure with multiple metastatic deposits within the liver.

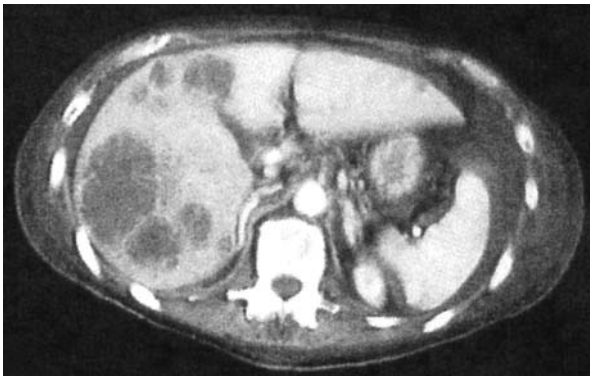

Figure 2. CT scan of the liver lesions reported as multiple liver abscesses

Histology showed a 10 cm in diameter tumor mass with variable pigment and appearances consistent with a small–intestinal carcinoid tumor (Figure 3). However, when these slides were reviewed at our multidisciplinary team meeting, the histopathologist was not entirely convinced it was a carcinoid tumor. Hence, immunohistochemical studies were conducted which revealed features of a metastatic melanoma (viable tumor cells strongly express S100 and HMB45 -melanocytic marker) (Figures 4, 5).

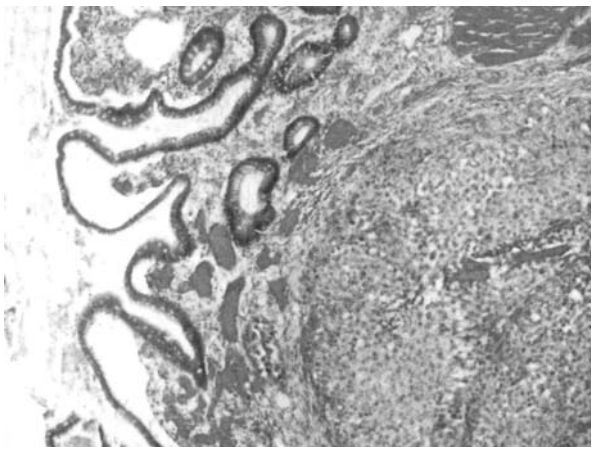

Figure 3. Hematoxylin and eosin stain: variable pigment and appearances consistent with a small–intestinal carcinoid tumor

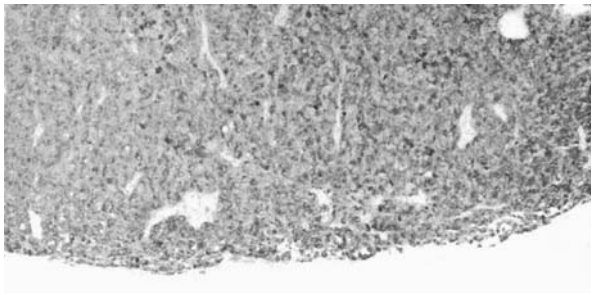

Figure 4. Immunohistochemistry for HMB45 was performed at a later date, which along with strong S100 positivity confirmed the melanoma

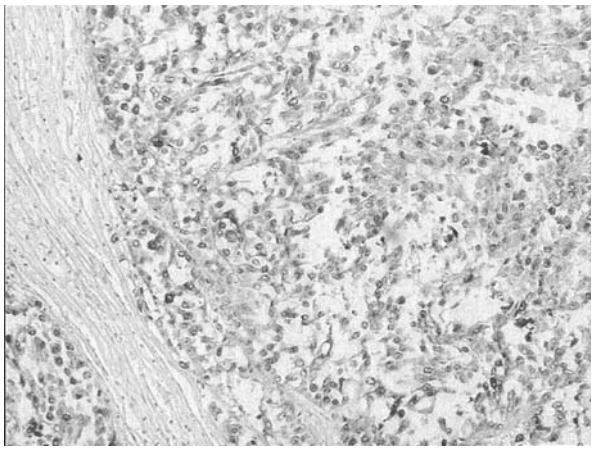

Figure 5. Immunohistochemical studies (HMB45-S100) - high power showed features of melanoma

Following this report, we re-investigated the patient's past medical history and learned that she had indeed had a skin lesion excised in the

community 15 years previously, which was not sent for histological analysis.

A good recovery appeared to be in process in the early postoperative days, but malnutrition, sepsis and dehydration led to an ultimate deterioration and death.

DISCUSSION

Melanoma is composed of melanocytes of neuroectodermal origin. The most common sites of primary occurrence include skin, oral and anal mucosa, eyes, esophagus, and meninges. Melanoma metastasizes via lymphatic and hematogenous routes, typically to the liver, lung, bone, and brain. If metastases occur in the GIT, the most common sites include the small bowel (50%), colon (32%), and anorectum (25%) (1, 2). In one case series, melanoma commonly metastasized to the liver (68%), small intestine (58%), colon (22%), and stomach (20%) (3).

These metastases are discovered before death in only 0.9%-4.4% of patients with a diagnosis of primary melanoma (3, 4). It was determined that these imaging studies were unreliable methods of detecting GIT metastases (CT scan: 66% sensitivity; small bowel follow-through: 58% sensitivity).

A limited number of GIT metastases causing bowel perforation have been described in the literature (4).

Melanoma tends to metastasize to focal areas of the small intestine; generalized peritoneal metastases are uncommon. Local involvement may consist of either a single solid melanotic tumor or multiple localized polypoid lesions. Because these lesions are localized, the tumors usually grow to a considerable size before symptoms develop (3). Relief of symptoms can be achieved with surgical resection of the GIT metastases (5). A long disease-free interval is common between the appearance of the cutaneous lesion and the abdominal manifestations. In some patients, no clinical evidence of primary melanoma exists (6). In our case, it is not clear whether the skin lesion found 15 years earlier was the primary lesion responsible for the metastatic tumor.

CONCLUSION

Melanomas metastatic to the GIT are more common than once thought. They are often asymptomatic or may present with non-specific symptoms. Despite this apparent relative frequency of melanoma metastatic to the GIT, most cases are not diagnosed before the patient's death.

Careful investigation of melanoma patients with GI symptoms is important, since surgical intervention often results in improved outcome and is warranted in patients with symptomatic GIT metastases to improve quality of life.

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