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Olgu Sunumu

Metastatic cutaneous melanoma presented with ileal invagination: report of a case

Kutanöz melanom metastazına bağlı ileal invajinasyon: Olgu sunumu

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We herein report a case of ileal invagination secondary to metastasis of a cutaneous melanoma. A 45-year-old female was admitted with intermittent abdominal pain and nausea. The patient's medical history was remarkable for cutaneous malignant melanoma. Imaging studies showed a solid mass in the right lower quadrant and the possibility of invagination. We made a preoperative diagnosis of partial intestinal obstruction, and laparotomy was performed. Intraoperative findings revealed ileal invagination. Segmental ileum resection with wide mesenteric lymph node dissection was performed. A polypoid metastasis of melanoma into the lumen of the ileum was confirmed with pathological examination. The diagnosis and management of intestinal metastasis of cutaneous malignant melanoma are discussed together with a literature review.

Key Words: Cutaneous malignant melanoma; invagination; ileum; metastasis.

Bu olgu sunumunda kutanöz malign melanomun metastazına bağlı gelişen ileal invajinasyon rapor edilmiştir. Kırk beş yaşındaki kadın hasta aralıklı olarak tekrarlayan karın ağrısı ve kusma ile başvurdu. Hikayesinde takipte kutanöz malign melanom hastalığı dışında özellik saptanmadı. Görüntüleme incelemeleri ile sağ alt kadran yerleşimli kitle lezyonu ve invajinasyon şüphesi saptanan hastaya parsiyel intestinal tıkanıklığı tanısı ile yapılan laparotomide ileal invajinasyon ile karşılaşıldı. Segmenter ileum rezeksiyonu ve geniş mezenterik lenf nodu diseksiyonu yapıldı. Patolojik inceleme sonrasında polipoid formdaki melanom metastazının ileum lümeni içerisinde yer aldığı ve invajinasyona yol açtığı izlendi. Kutanöz malign melanomların intestinal metastazlarının tanı ve tedavisi literatürdeki bilgi birikimi doğrultusunda tartışılmıştır.

Anahtar Sözcükler: Kutanöz malign melanom; invajinasyon; ileum; metastaz.

Cutaneous malignant melanoma has a naturally high metastatic capacity. It can metastasize locally to the subcutaneous tissue and lymph nodes or distantly to the eye, meninges, gastrointestinal (GI) tract, liver, ovaries, and uterus.[1] Primary melanoma of the small bowel is extremely rare and is considered by many authors to be metastatic from an unknown site of cutaneous melanoma. The small bowel constitutes one of the most common sites for GI metastasis of malignant melanoma. We herein report a case presented with ileo-ileal intussusception caused by metastatic melanoma.

CASE REPORT

A 45-year-old female patient was admitted to our department with intermittent abdominal pain and nausea. The patient's medical history was remarkable for malignant melanoma. Two years before, the patient underwent lymph node biopsy from the left inguinal region, and the pathologic examination revealed metastases of malignant melanoma. The primary site of the tumor was a nevus located on the left leg. The pathologic examination revealed superficial spreading melanoma in stage T3a. After completion of elective inguinal lymph

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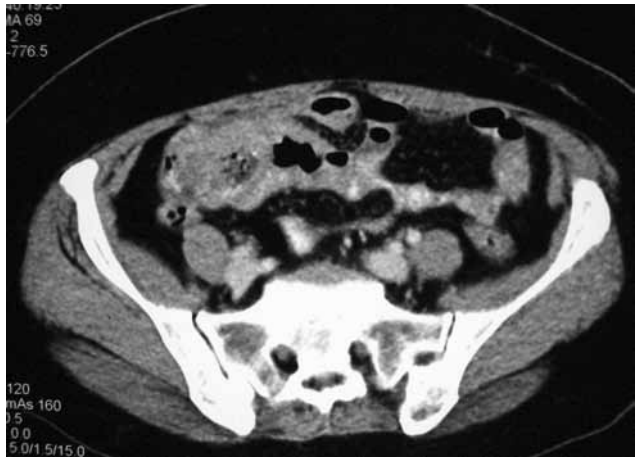

Fig. 1. Abdominal tomography revealed mass lesion in the right lower quadrant.

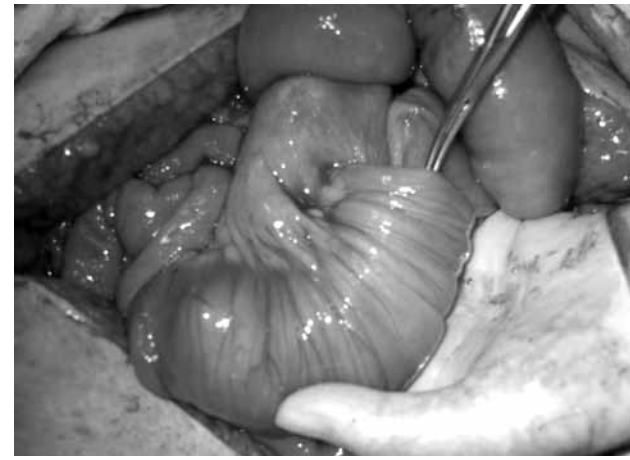

Fig. 2. Ileal invagination was observed in the laparotomy.

node dissection, the tumor stage was considered as IIIA according to 2002 American Joint Committee on Cancer (AJCC) stage groupings for cutaneous melanoma. [2] She received high-dose interferon-α2b treatment for six months. Due to the patient's discordance during the period of biologic therapy, the treatment was stopped without completion of the one-year protocol. There had been no recurrence since the completion of chemotherapy. Her physical examination revealed normal findings. Her laboratory data were in normal ranges. Tumor markers were in nearly normal ranges. Computerized tomography of the abdomen revealed the possibility of jejunal invagination; however, only hypertrophy was observed in the upper GI series. Based on the absence of radiological confirmation of invagination, the patient was followed without surgical intervention. However, three months later, she was readmitted with unresolved symptoms. Examination of the abdominal cavity was repeated with computerized tomography (CT) scan (Fig. 1), which revealed a solid mass lesion in the right lower quadrant and para-aortic lymph nodes ranging in size from 1.5 cm to 3.5 cm. On laparotomy, a solid lesion located on the mesentery of the ileum was detected 30 cm from the ileocecal junction. An approximately 80 cm small bowel segment was invaginated over the mass (Fig. 2). No necrosis was observed within the invaginated segment. Resection of the mass with huge margins, lymphadenectomy and segmentary resection of the ileum were performed. The continuity of the GI tract was reconstructed with end-to-end ileoileostomy. The postoperative course was uneventful. Macroscopic examination of the specimen demonstrated a polypoid mass, 5x6 cm, in the lumen of the ileum. The mass originated from the mesenteric side of the lumen. Histopathological examination revealed the presence of malignant melanoma. Immunohistochemical examination with S-100 and HMB-45 was considered positive in tumor cells (Figs. 3-5). Three metastatic and two reactional lymph nodes were observed within the specimen.

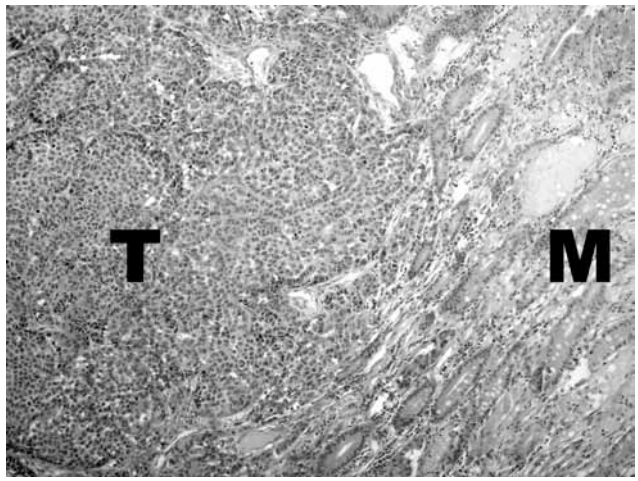

Fig. 3. The relation of the metastatic lesion (marked with T) with intestinal mucosa (marked with M) is shown on histopathological examination (H-E x 40).

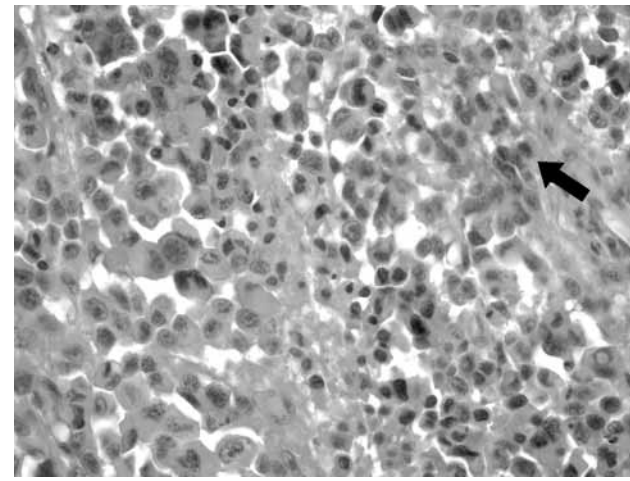

Fig. 4. Atypical melanocytic cells and melanin pigment were observed in the section prepared from polypoid mass (pigment of melanin is marked with arrow, H-E x 400).

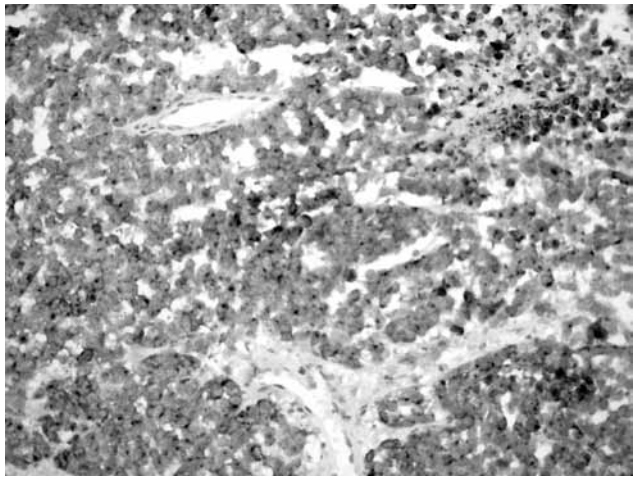

Fig. 5. HMB-45-positive cell cytoplasm is marked with brownish staining (immunoperoxidase x 200).

DISCUSSION

Tumors of the small bowel are rare, accounting for about 3-6% of all GI neoplasms, though it covers more than 90% of the intestinal surface.[3] The rapid transit time of luminal contents, which reduces mucosal exposure to potential carcinogens; the greater fluidity of the liquid contents, which are mechanically less irritating; an alkaline pH; a decreased bacterial population; a higher concentration of lymphoid tissue; and a relatively high output of immunoglobulin A all have been attributed to protecting the small intestine from the influence of potential carcinogens.[3-5] However, intestinal involvement of metastatic cancer is common, with varying incidence among different malignancies. Such involvement, mostly in the form of diffuse peritoneal carcinomatosis, has been reported in up to 5-10% of cases in neoplasms such as breast cancer and malignant melanoma.[3,4-7] In autopsy series, the rate of metastatic cancer is even higher.[8] Only 2 to 4% of patients with melanoma will be diagnosed with GI metastases during the course of their disease.[9] GI metastasis of melanoma is reported more commonly (50-60%) in autopsy series.[10]

The primary melanoma in patients with GI metastasis is typically located in the extremities (15-57%), trunk (13-54%) and less frequently in the head and neck (5-33%).[11-16] In 10-26% of cases, the primary lesion is occult. The period observed between the diagnosis of primary melanoma and GI metastasis is reported as up to 54 months.[17] The most common sites of metastasis in the GI tract are the jejunum and ileum.[17] Clinical signs and symptoms were generally reported as chronic abdominal pain, occult or gross bleeding and weight loss.[15,16] The median duration of symptoms of GI metastases ranged from 2 to 5.5 months.[16] As occurred in our case, these indistinct symptoms may impede the early diagnosis and treatment of the disease.

Metastases from melanoma in the GI tract present in two predominant ways.[18,19] The first, and most common, is as multiple submucosal implants. The implants tend to extend intraluminally, where they eventually cause obstruction and pain or ulcerate, resulting in acute or occult blood loss. The other common lesion is polypoid; this can cause intussusception, as observed in our case. In addition to these well described means of metastasis, peritoneal and mesenteric spreads have also been noted in the literature.[16]

Radiographically, small bowel lesions may present as mural nodules, "target" lesions, large excavating masses,[20] or diffuse small bowel involvement. Endoscopy may be unrewarding because of the predilection of these tumors for metastasis to the small bowel serosa and mesentery. Enteroclysis is the study of choice to detect small bowel melanoma.[21] Abdominal ultrasound and CT scan may be useful for detecting mesentery deposits, with the distal small bowel most often involved. However, the sensitivity of CT scan for detecting metastases is only 60 to 70%.[22]

Superficial spreading melanoma, the most common subtype of melanoma, is the leading type to metastasize to the GI tract, although all histological subtypes of cutaneous melanoma may metastasize to the GI tract.[10] The risk of melanoma spread to the GI tract is higher among patients with a primary lesion classified as Clark III or above, whereas it rarely occurs in patients with Clark II or Clark I.[12,14] The pathological diagnosis of metastasis of malignant melanoma to the GI tract requires careful inspection of the mucosa for metastatic lesions and biopsy with special immunohistochemical stains (HMB-45 and S100).[22]

The significant advantage of complete resection of GI metastases on postoperative survival of patients is well described in the literature.[13,23] The median survival period after complete resection of GI metastases varied from 31.6 to 48.9 months, whereas incomplete resection was associated with a 5.4 - 9.6 month median postoperative survival period.[13,23] A multiple intestinal involvement pattern of melanoma metastasis into the GI tract impedes curative intent of surgical therapy in the majority of series. Up to 66% of cases had undergone curative resection after determination of GI metastasis.[13,23] The indications of operative intervention for melanoma metastasis were evaluated by Gutman et al.[24] Half of their patients underwent surgery on an elective basis and 22% required emergency surgery for bowel obstruction or gross gastrointestinal hemorrhage, but whether the indications for surgery were elective or emergency had no impact on postoperative survival.

In conclusion, the management of GI metastasis of cutaneous malignant melanoma presents some contro-

versy. It is important to follow patients with melanoma carefully, especially if the primary lesion is Clark III or higher. Clinicians should be suspicious of the possibility of GI metastasis in the presence of indistinct findings emerging from physical and radiological examinations. Complete surgical resection of metastatic disease can provide important survival benefit when there is no evidence of disease left after surgery. Even when curative surgery is impossible because of the extent of disease, metastatic tumor resection or GI tract bypass surgery is recommended to relieve symptoms or avoid future complications. The evolving role of immunotherapy and chemotherapy of the metastatic malignant melanoma may extend survival expectancy in patients after surgical treatment.

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