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Case Report

Primary Malignant Melanoma of the Small Bowel Revealed by Ileo-Ileal Intussusception

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Abstract

Malignant melanomas of the gastrointestinal tract are rare. A large proportion of them are metastatic tumors, and they are capable of holding the entire gastrointestinal tract from mouth to anus. They usually lead to obstruction, intussusception, or mass formation in the abdomen. A 45-year-old female who had been taken to surgery with prediagnosis of mechanical intestinal obstruction and final diagnosis by postoperative histopathological examination after surgical operation was reported. The patient had segmental small bowel resection along with an abdominal mass is presented owing to its rarity and to highlight the issue.

Keywords: Malignant melanoma, small bowel, obstruction, ileum

Introduction

Malignant melanoma is an aggressive tumor that is primarily and frequently localized to the skin and is responsible for 80% of skin cancer-related deaths. Primary malignant melanomas of the small bowel are very rare tumors and constitute 1%-3% of all gastrointestinal tumors (1). Their asymptomatic characteristic makes them difficult to diagnose at early stages. Generally, the absence of melanoblasts in the small bowel mucosa has led to debate about the origin of the tumor. Despite curative surgical intervention, the expected survival/recovery of these patients is very low (2). In the present study, we present the rare case of a female who had been operated owing to small bowel obstruction and finally diagnosed with malignant melanoma after pathologic examination.

Case Report

A 45-year-old female patient was admitted to the hospital with complaints of episodic abdominal pain with a 5-month history and worsening nausea, vomiting, loss of appetite, and weight loss during the last 15 days. There were no specific characteristics on the personal history of the patient. Generalized tenderness and distension as a result of the physical examination performed were detected. Laboratory tests revealed normal hemogram and biochemical parameters.

Abdominal tomography revealed dilatation that was 4.5 cm at the widest part of the loops of the jejunum. It was observed wall thickening of approximately 7 cm distal to the jejunum in the right lower quadrant and an appearance consistent with invagination without an overtaking to the distal. A contrast-enhanced, well-circumscribed heterogeneous lesion of 40×47 mm comprising cystic sites adjacent to the posterior aspect of the right iliac artery at the superolateral side was noted (Figure 1).

Laparotomy for patients prediagnosed with mechanical intestinal obstruction according to the present findings was elected. A mass obstructing the lumen almost entirely that is 4×5 cm in size with intraluminal localization precisely 100 cm proximal to the ileocecal valve according to the results of the examination was detected (Figure 2). In response, the mass and small bowel mesentery of approximately 35 cm were resected, and an end-to-end anastomosis was performed. The patient was prescribed fluid intake from the 4th postoperative day and was discharged on the 7th postoperative day without any issues. The patient was diagnosed with malignant melanoma after pathological examination of the mass. The tumor was stained diffusely with HMB-45, and atypical melanocytes were noted in the immunohistochemical study (Figure 3). No primary focus for malignant melanoma was detected when the patient consulted with the Departments of Gastroenterology, Dermatology, and Ophthalmology. In the physical examination performed by dermatology and eye clinic and anamnesis received, the skin lesion is undetermined which gives the finding nevus and occurred after in the body or eyes. Itching, bleeding, or ulceration were not

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observed and therefore skin biopsy was not required. In addition, any other focus by gastroenterology examination and monitoring examinations was undetermined. The patient was referred to the Medical Oncology Clinic. No issues or complaints were observed during the 4-month postoperative follow-up period. Informed consent was obtained from the patient who participated in this case.

Discussion

Gastrointestinal malignant melanomas are usually asymptomatic and are often diagnosed during autopsy. Patients may complaint of abdominal pain, fatigue, weight loss, constipation, rectal bleeding, and anemia (3). They usually do not cause symptoms unless they a certain size in the small intestine. They usually become subject to surgical operation because of mechanical obstruction at the bleeding or small bowel level. Small bowel perforation or malabsorption is rarely seen (4).

Although the majority of the intestinal malignant melanomas are metastatic, some rare cases considered to be primary without any other primary focus at sites such as the esophagus, small intestines, rectum, and anus have been reported (5). In addition, several studies have shown that melanoblasts cannot exist in the small intestine and claimed that malignant melanoma cannot develop in the intestines primarily. There are also some studies in the literature, which show that melanocytes can exist at those sites, especially in the anal tract, according to the results of some histological studies performed. Staining with HMB-45 and S-100 in these regions was found to confirm the existence of melanocytes at those sites according to the results of immunohistological studies performed as well (6).

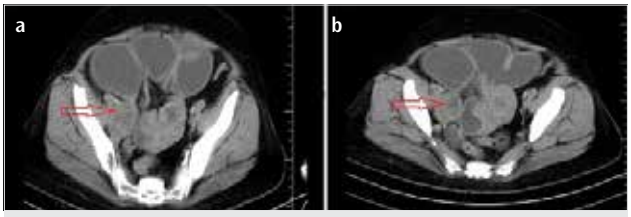

Figure 1. a,b. Axial (a, b) contrast-enhanced computed tomography shows a mass lesion in the ileum (red arrow)

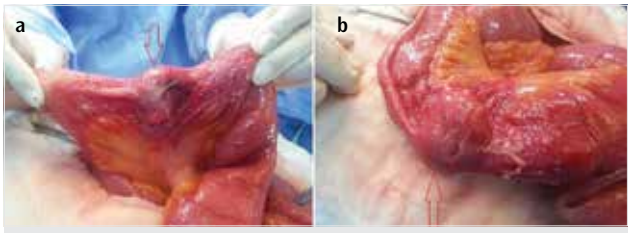

Figure 2. a,b. Surgical specimen with intraluminal mass of the ileum (a, b)

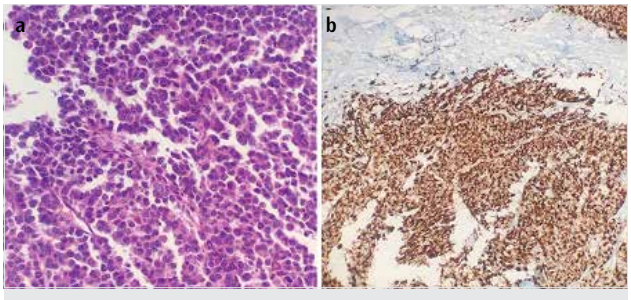

Figure 3. a,b. Atypical melanocytes (a) and mitotic figures (b) are positive in immunohistochemical staining (H&E: 400×, HMB-45: 200×)

Although ultraviolet radiation exposure is defined as one of the primary etiologic factors of skin melanomas, the etiologic factors in primary malignant melanoma developed in the gastrointestinal tract that does not receive any sunlight, could not be known for sure today (7). Metastatic melanoma seen in the gastrointestinal tract can be observed in the small intestines (50%), colon (25%), and anorectal region (25%) (8). The melanoma mortality rate is 25% as per autopsy reports, but only 1%-4% of patients are diagnosed during their lifetime (9).

Imaging methods in the detection of gastrointestinal malignant melanomas are still not very reliable. Sensitivity of computed tomography in melanoma patients diagnosed with small bowel metastasis is approximately 60%-70%. Enteroclysis or positron emission tomography can also contribute to the diagnostic process (10).

Treatment options for gastrointestinal system melanomas include some other methods such as follow-up, surgical resection, chemotherapy, and immunotherapy. Surgical treatment is usually not curative and requires additional treatment. The average surveillance of the treated patients is closely related to the degree of metastasis. As gastrointestinal melanomas often present symptoms in the late stages, the time of diagnosis usually presents a very advanced period of the disease. In these patients, the average survey is <1 year, and 5-year survival rates are <10% (7).

Conclusion

Primary malignant melanoma in the small intestines is rare. It should always be noted that malignant melanoma can be observed in patients diagnosed with and operated because of intestinal obstruction, and they should be informed about the modalities of the treatment. Effective palpation and surgical treatment are the most appropriate treatment options for disease-free survival.

Informed Consent: Informed consent was obtained from the patient who participated in this study.

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