Intussusception on melanoma metastasis: A rare condition

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ABSTRACT

Introduction: Malignant melanoma is a common tumor whose incidence is increasing. The most common form of intestinal metastasis of melanoma is submucosal implant. Intussusception, which is most often secondary in adults, can occur on melanoma metastasis. Computed tomography (CT) is the test that confirms intestinal obstruction due to intussusception. Case Report: We report the case of a 47-year-old female patient, with history of malignant scalp melanoma. She was admitted to the emergency room of the hospital in a clinical picture of small intestine occlusion. On clinical examination, she had a distended and painful abdomen. Abdominal-pelvic CT showed an entero-colic invagination on the right iliac fossa. There was no evidence of ischemia of small bowel nor colic. Conclusion: A nodular endoluminal form of melanoma metastasis can lead to intestinal invagination. Therefore, it is worthwhile to look for it in case of clinical picture of intestinal obstruction in a patient with history of melanoma.

Keywords: Bowel obstruction, Intussusception, Melanoma, Metastasis

INTRODUCTION

Intestinal invagination or intussusception is not a common condition in adults. It represents 5% of invaginations and 1–5% of causes of intestinal obstruction [1]. It is most often secondary, and its treatment is surgical. In children, this condition is frequent and it is usually primary and benign [2, 3].

Malignant melanoma is a common tumor whose incidence is increasing [4]. It has the property to metastasize widely. It gives metastasis in any organ and the gastrointestinal secondary locations predominate in the small intestine [5].

Intestinal metastases from melanoma constitute more than 10% of all intestinal metastases even though melanoma comprises less than 4% of the clinical malignancies [6].

Diagnosis of intestinal metastasis of melanoma is often late and is suspected in the presence of a history of melanoma and mechanical occlusive syndrome [4]. Computed tomography is the test that confirms intestinal obstruction due to intussusception or other cause requiring emergency intervention. This presentation concerns a rare case of entero-colic intussusception caused by endoluminal metastasis of a malignant scalp melanoma.
CASE REPORT

This is a 47-year-old female patient, with history of malignant scalp melanoma with jugulo-carotid lymph node metastasis resected in 2017, curettage in 2019. The entire scalp tumor was removed. Systematic histological analysis confirmed the absence of residual tumor cells microscopically. The patient underwent a curative chemotherapy treatment which consisted of a cycle of dacarbazine and a cycle of pembrolizumab.

She was admitted to the emergency room of the hospital in a clinical picture of small intestine occlusion with vomiting for 10 days without any notion of transit stopping. On clinical examination, she had a distended and painful abdomen.

Abdominal-pelvic CT showed an entero-colic invagination on the right iliac fossa (Figure 1) on endoluminal tissue mass associated with peritoneal effusion of low abundance (Figures 2 and 3).

Other tissue masses had also been noted at some digestive walls (Figure 4). Several intra- and retroperitoneal tissue nodules were objectified with some subcutaneous nodules of the same characteristics (Figures 4 and 5). There was no evidence of ischemia of small bowel nor colic.

In the operating room, a mid-umbilical incision extending up to the umbilical was made. Exploration of the abdominal cavity revealed a medium abundance fluid effusion, an enteric distension upstream of an intussusception sausage of about 30 cm at the level of the caecum, scattered melanosis in the small intestine, mesentery, colon, stomach, and duodenum as well as several mesenteric lymphadenopathies.

The surgical gestures carried out consisted of an aspiration of the fluid effusion, a manual disinvagination which showed a viability of the invaginated loop then an ileocecal resection with an ileocolic termino-terminal-anastomosis.

Figure 1: Abdominal-pelvic CT in cross section without injection of contrast medium showing a concentric rings in the right iliac fossa in favor of the entero-colic invagination.

Figure 2: Abdominal-pelvic CT in cross section after injection of contrast medium showing the entero-colic invagination on the right iliac fossa on endoluminal tissue mass (white arrow).

Figure 3: Abdominal-pelvic CT in cross section after injection of contrast product showing a peritoneal effusion of low abundance in the left hypochondrium.

Figure 4: Abdominal-pelvic CT in cross section after injection of contrast medium showing a subcutaneous nodule (red arrow) and a nodule of the colon wall (white arrow) enhanced after injection of contrast medium.
DISCUSSION

In the majority of occasions there is an organic lesion that explains an intestinal invagination in adult [7], and the most common clinical sign is abdominal pain, associated with inflammatory biochemical symptoms [7].

The different intestinal invaginations depending on the site are: enteroenteric (jejuno-jejunal, jejunoileal, and ileoileal), colocolic (actual or sigmoid-rectal), and entero-colic (ileoecolic, when the end of the invagination is located in the ileum, and ileocecal, when it is located in the caecum or in Bauhin’s valve [8].

Melanoma is a malignant tumor that develops from melanocytes found primarily in the skin, eye, meninges, and gastrointestinal mucosa from mouth to the rectum [7].

The incidence of melanoma is increasing in Europe and the United States [5]. There are four types of melanoma:

- The extensive superficial malignant melanoma
- Nodular malignant melanoma
- Melanoma lentigo malignant, which develops in photo-exposed areas
- Acral malignant melanoma

Malignant melanoma of the digestive tract can be primary or secondary [9]. Intestinal metastases of melanoma have the same clinical status as other intestinal tumors: abdominal pain, melena, anemia, occlusion, perforation, or intussusception [6].

Metastases from melanoma have two forms in the intestine [10]. The most common form is predominant that of multiple submucosal implants. The other common lesion is polypoid and often serves as the lead point for an intussusception [11]. In young patients with a history of melanoma, intestinal metastases should be the most advanced differential diagnosis for bleeding or intussusception [6].

The diagnosis of a complication of a metastasis of a malignant melanoma is based on imaging: the CT scan, the ultrasound, and recently the positron emission tomography (PET) scan which allows to locate the site of the metastasis [12].

Surgery is the leading treatment for metastases of the digestive tract. The median survival after complete resection is 48.9 months, compared to 5.4 months after incomplete resection [13].

CONCLUSION

Melanoma can be a cause for bowel metastases related intussusception in an adult, years after the management of the primary lesion. Therefore, it is worthwhile to look for it in case of clinical picture of intestinal obstruction in a patient with history of melanoma.

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