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Small bowel intussusception due to malignant melanoma: primary lesion or metastases? A case report

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SUMMARY: **Small bowel intussusception due to malignant melanoma: primary lesion or metastases? A case report.**

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Intussusception is a rare condition in the adult population: it is responsible for 1% of all bowel obstructions.

In most of intussusceptions a malignant tumor is involved; a lot of studies show that approximately 50% of malignant metastases causing small bowel intussusception are metastatic melanomas.

In present paper a case of a small bowel intussusception probably due to metastases of an occult melanoma, in a 69-year-old patient, is presented.

Surgery resection, careful research of possible primitive neoplasms and an accurate follow-up program has been the treatment of choice. All the investigations carried out did not allow to identify a possible primitive neoplasm.

The last whole body PET carried out 44 months after surgery resulted disease-free.

KEY WORDS: Melanoma - Bowel Intussusception - Case report..

Introduction

Intussusception is defined as the invagination of one portion of the bowel into an immediately adjacent intestinal tract: the proximal segment, or intussusceptum, is carried by progressive smooth muscle contractions into the distal segment, or intussuscipiens (1).

Intussusception is a rare condition in the adult population: it is responsible for 1% of all bowel obstructions. Diagnosis is difficult due to the nonspecific symptoms of presentation; obstruction symptoms with abdominal pain is the most common presentation (2).

In most of intussusceptions a malignant tumor is involved; a lot of studies show that approximatively 50% of malignant metastases causing small bowel intussusception are metastatic melanomas (3).

Melanoma is a tumor that arises from melanocytes or melanocyte precursors, and may virtually involve any tissue in the body (4).

In cases of melanoma metastasis in the small intestine, in which the primary localization has not been localized, we find great discussion in the literature about considering such lesions as actual metastases of occult melanomas rather than primitive melanomas of the small bowel (5, 6).

In present paper a case of a small bowel intussusception probably due to metastases of an occult melanoma, in a 69-year-old patient, is presented.

Case report

A 69-year-old man was admitted to Emergency department complaining of abdominal pain lasting for 10-12 hours; he was visited from his family doctor who found an asymptomatic normochromic normocitic anemy of unknown etiology. One year before was diagnosed colon diverticular disease by colonoscopy from a gastroenterologist.

Medical history included type 2 diabetes mellitus, a prior operation to right vocal cord for a squa-

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mous cell tumor and a prior operation of laparoscopic cholecystectomy.

The physical examination showed a distended abdomen with painful palpation at the mesogastric and lower left quadrants palpation. X-ray of the abdomen was consistent with small bowel obstruction; TC scan showed an obstructing abdominal mass originating from the small bowel and causing intussusception (Figure 1).

The exploratory laparotomy showed a hard lump in the jejunal bowel, compatible with jejunojejunal intussusception caused by a intrisic neoformation (Figure 2). Intestinal resection was performed (Figure 3) with a latero-lateral isoperistaltic anastomoses and at the same time a macroscopically pathologic lymphnode of the mesenteric root was removed. The post-operative course was great, with the patient's discharge in the 5th post-operative day.

The histological examination found in the bowel resection a 5 cm stenosing melanoma involving mesenterial fat and one lymph node metastasis. The margins of resections were found to be disease-free. The Ki-67 proliferation index was 30-40%. The histochemical evaluation allowed to verify the positivity of S100 and HMB-45, while the absence of expression of chromogranin, synaptophysin, CD56, CD45, AE1/AE3, MNF115, CDX2 and P40 was observed.

The characteristics of molecular biology have suggested the hypothesis that it was a neoformation of metastatic origin rather than a primitive melanoma of the small intestine. For these reasons, the patient underwent dermatological, ophthalmologic, urological evaluation and first staging PET within one month after surgery. During the next four months the patient underwent thoracic and abdominal CT, cerebral MR and panendoscopy. The subsequent follow-up included a 7-month and 12-month abdominal CT, a further 7-month dermatological examination and close surveillance by whole body PET/CT every 6 months. All the investigations carried out did not allow to identify a possible primitive neoplasm.

The last whole body PET carried out 44 months after surgery resulted disease-free.

Discussion

Melanoma of the gastrointestinal tract is rare, with most cases occurring as metastasis from cutaneous lesions (7).

Metastasis of an occult melanoma are described in literature, with bowel, lungs or cardiac localization (5) (6) (8), however, in literature a great discussion has been developed since several cases of pri-

Figure 1. TC scan showed an obstructing abdominal mass originating from the small bowel and causing intussusception.

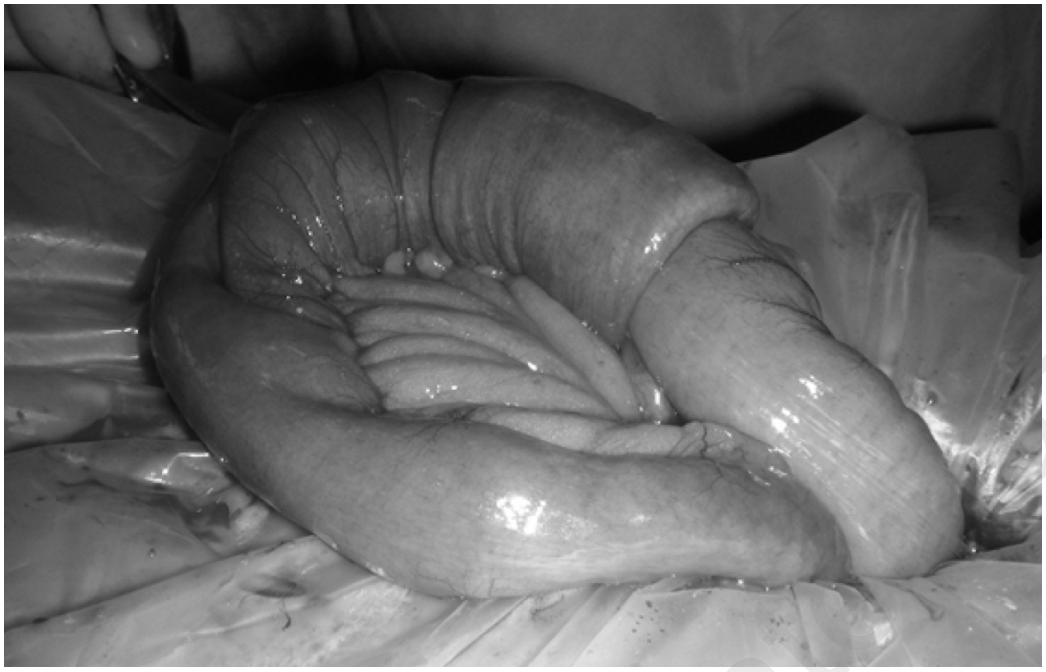

Figure 2. Jejunojejunal intussusception caused by a intrisic neoformation.

Figure 3. Intestinal resection.

mary melanomas of the GI tract has been described (9, 10, 11). Some studies consider all GI tract melanomas to be metastatic in origin; this option is based in the fact that some of the cutaneous melanomas can regress spontaneously (10, 12).

To determine if the small intestinal malignancy is a primary lesion, Blecker et al. (13) propose some criteria: presence of a solitary mucosal lesion in the intestinal epithelium, absence of melanoma or atypical melanocytic lesions of the skin and presence of atypical melanocytic cells in the basal layer of the bowel epithelium.

In our case, there was no history of cutaneous melanoma and no finding of primary lesion in the skin, so the first two Blecker's criteria are respected. However, the third one isn't respected, because no melanocytic cells were found by the histological examination.

It is very difficult to define if the lesion is a rare case of primary small bowel melanoma or a metastasis of a regressed melanoma. In both case, surgical resection of the lesion is the mainstay of treatment (9, 13, 14).

Conclusion

The case report showed a rare case of malignant melanoma causing jejunal bowel intussusception. The discussion about it was a primary lesion or a metastasis of an occult/regressed melanoma is still open. Surgery resection, careful research of possible primitive neoplasms and an accurate follow-up program is treatment of choice.

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