CASE REPORT

Small bowel intussusception due to metastatic renal cell carcinoma

Iraklis E. Katsoulis*, Chrystalla Sourouppi, Andreas N. Dafnis, Dionysios Katsaounis and Klisthenis Tsamakidis

Department of Surgical Oncology and Department of Gastroenterology, St. Savvas Cancer Hospital, 171 Alexandra’s Avenue, 11522 Athens, Greece
*Correspondence address. Department of Surgical Oncology, St. Savvas Cancer Hospital, 171 Alexandra’s Avenue, 11522 Athens, Greece.
Tel: 00306944747226; E-mail: hrkats@yahoo.co.uk

Abstract

Metastases from renal cell carcinoma (RCC) are rarely located in the small bowel and usually present either with iron deficiency anaemia due to occult bleeding or obstructive symptoms. A 65-year-old man with not known malignancy was admitted to our hospital with symptoms of intermittent bowel obstruction. The abdominal computed tomography (CT) scan depicted a large tumour of the right kidney and obstruction of the small intestine at the level of the proximal jejunum. A jejuno-jejunal intussusception was found on laparotomy, due to endoluminal lesions that proved to be metastatic from RCC. Intussusception of the small bowel due to metastatic RCC is a very rare combination and only a few such cases have been reported so far in the literature.

INTRODUCTION

Renal cell carcinoma (RCC) is the most common neoplasm of the kidney and the seventh most common neoplasm in the developed world. It is associated with more than 140,000 deaths per year. The majority of diagnoses are made in men in their seventh decade of age. The neoplasm is categorized in various subtypes and it may metastasize to almost every organ with the lungs, bones, liver and brain being the most common. Metastases from RCC are rarely located in the small bowel and usually present either with iron deficiency anaemia due to occult bleeding or obstructive symptoms. Intussusception of the small bowel due to metastatic RCC is a very rare combination and only a few such cases have been reported in the medical literature so far [1–12]. Small bowel intussusception in adults is a very uncommon cause of obstruction, accounting for 1–5% of all bowel obstructions and 5% of all intussusceptions [13].

We present here a patient with metastatic renal carcinoma to the small bowel, seen recently to our institution, with obstructive symptoms due to intussusception.

CASE PRESENTATION

A 65-year-old man with not known malignancy, was admitted to our hospital with symptoms of intermittent bowel obstruction. He had no previous history of abdominal surgery and physical examination revealed abdominal distention, metallic bowel sounds, pallor, and signs of mild dehydration. Furthermore, a fixed subcutaneous lesion was palpated in the right subcostal region. Laboratory tests revealed iron deficiency anaemia. A plain abdominal radiograph in the upright position showed dilated small bowel loops in the upper abdomen. Upper GI endoscopy showed esophagitis and a small hiatal hernia whereas colonoscopy was unremarkable. The abdominal CT scan depicted a large tumour of the right kidney and obstruction of the small intestine at the level of the proximal jejunum (Fig. 1). The persistence of his symptoms led to an exploratory laparotomy and jejuno-jejunal intussusception was found, approximately 50 cm distal to the ligament of Treitz, due to multiple endoluminal neoplastic lesions (Figs 2 and 3). Resection of the affected part of the jejunum and side-to-side anastomosis was performed. In addition, the subcutaneous lesion was removed.

The patient’s postoperative course was unremarkable, and he was discharged from hospital in a good condition. Histological examination of the jejunal specimen confirmed multiple metastatic lesions from RCC. The subcutaneous lesion of the torso was similarly metastatic. Subsequently the patient was referred to medical oncologists for further management.

DISCUSSION

Small bowel intussusception in adults is rare, rendering its diagnosis challenging due to non-specific symptoms.
Abdominal computed tomography showing a large tumour of the right kidney and obstruction of the small intestine at the level of the proximal jejunum.

On laparotomy, jejuno-jejunal intussusception was found approximately 50 cm distal to the ligament of Treitz. However, it can be the first presentation of primary or metastatic neoplasms. Especially patients with a positive cancer history, presenting with unexplained small bowel obstruction symptoms, should raise high suspicion for metastatic disease. Small bowel metastatic tumours are most commonly originated from melanoma, head and neck, breast, and oesophageal cancers.

Due to the non-specific and often obscure symptoms that accompany malignant neoplasms of the small bowel, either primary or metastatic, as well as the difficulty in diagnostic examination of the small bowel due to the low diagnostic accuracy of conventional paraclinical tests (enteroclysis with gastrographin, computed tomography) are the main reasons for delaying and making challenging the diagnosis of neoplasms of this part of the digestive tract.

Multiple endoluminal neoplastic lesions in the resected specimen.

CONCLUSIONS

Unexplained intestinal symptoms, such as small bowel ileus and iron deficiency anaemia, although not so rare should raise suspicion for a variety of pathological entities. Neoplastic metastases should be high on our list especially in patients with a positive cancer history. Diagnosis is not always feasible with imaging studies and an exploratory operation is often mandatory.

REFERENCES

1. Dziri C, Zermani R, Ben Slama MR, Chebil M. Localisation iléale d’un carcinome à cellules rénales révélée par une invagination iléo-caecale [ileocolic intussusception from metastatic renal cell carcinoma]. Prog Urol 2013;23:73–5.
2. Hegde RG, Gowda HK, Agrawal RD, Yadav VK, Khadse GJ. Renal cell carcinoma presenting as small bowel obstruction secondary
Small bowel intussusception due to metastatic renal cell carcinoma

1. rampersad rd, ramcharan r, maharaj d, narayansingh v. small bowel intussusception: a rare complication of renal cell carcinoma. west indian med j 2006;55:68–9.
2. aissa a, kherifech m, alouini r, hajji h, stita w. multiple intussusceptions revealing metastases from renal carcinoma to the small intestine. j visc surg 2012;149:e223–4.
3. roviello f, caruso s, moscovita falzarano s, marrelli d, neri a, rampone b, et al. small bowel metastases from renal cell carcinoma: a rare cause of intestinal intussusception. j nephrol 2006;19:234–8.
4. ekbote gr, rajpal lb, makam sd. a very rare case of intussusception of small bowel due to metastasis from renal cell carcinoma. j indian med assoc 2014;112:56–61.
5. deguchi r, takagi a, igarashi m, shirai t, shiba t, watanabe s, et al. a case of ileocolic intussusception from renal cell carcinoma. endoscopy 2000;32:658–60.
6. bellows cf, haque s, jaffe bm. two unusual cases of adult intussusception. dig surg 2002;19:241–4.
7. haynes ig, wolverson rl, o'brien jm. small bowel intussusception due to metastatic renal cell carcinoma. br j urol 1986;58:460.
8. bellio g, mis tc, kaso g, dattola r, casagranda b, bortul m. small bowel intussusception from renal cell carcinoma metastasis: a case report and review of the literature. j med case reports 2016;10:222.
9. budmiger asm, nagy v, hurlimann s, metzger j. triple jejuno-jejunal intussusception due to metastatic renal cell carcinoma. j surg case rep 2015;4:1–3.
10. pots j, al samarasee a, el-hakeem a. small bowel intussusception in adults. ann r coll surg engl 2014;96:11–4.