Clinical analysis of renal cell carcinoma with intestinal metastasis resulting in small bowel and colon fistula

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Dear Editor,

An enteric fistula is an abnormal connection between the intestine and other organs and is often caused by inflammation or trauma. Diagnosis and treatment involve imaging and endoscopy. Treatment may include medication and surgery. This report presents a rare case of severe enteric fistula caused by colonic metastasis of clear cell renal carcinoma. The objective of this report is to increase surgeons’ awareness of atypical manifestations of intestinal metastatic cancer.

A 58-year-old patient had been treated for renal cancer 13 years prior. One year ago, the patient underwent further surgery to remove abdominal tumors that were diagnosed as metastatic renal cell carcinoma. However, the patient was eventually re-admitted because of discomfort and fatigue.

We performed laparoscopic-assisted resection of the colon tumor, small
intestine tumor, and lysis of intestinal adhesions. Post-surgery pathology revealed an adenocarcinoma, consistent with metastatic renal clear cell carcinoma. We believe that our study makes a significant contribution to the literature because it describes a rare case of intestinal fistula due to renal cell carcinoma metastasis and subsequent treatment. The specimen showed an ulcerative tumor with the development of an enterocolonic fistula at the central concave area (Figure 1). Postoperative pathology revealed an adenocarcinoma, consistent with metastatic renal clear cell carcinoma based on immunochemistry. The tumor invaded the muscular layer of the intestinal wall, reaching the adjacent fat tissue with neural invasion. The pathological stage was pT3NOMx.

Discussion
Intestinal fistula due to renal cell carcinoma metastasis to the small intestine or colon is rare. Accurate diagnosis using computed tomography/magnetic resonance imaging is challenging. Therefore, Khosla et al. proposed colonoscopy for precise visualization and biopsy of lesions to accurately identify malignant intestinal pathology (1). Cerrella et al. also suggested the use of gastrointestinal endoscopy to improve the diagnostic rate (2). Intestinal fistula or secondary tumors in renal cell carcinoma are rare, especially without gastrointestinal bleeding or abdominal pain. Thus, a reevaluation is necessary as comprehensive examinations accurately diagnose uncertain lesions. Cryoablation and minimally invasive surgery offer safe and effective strategies for managing limited metastases, renewing interest in treating oligometastatic diseases (3). According to Loh et al., surgical resection of metastases was advantageous for survival, with a 5-year survival rate of up to 45% in patients who underwent complete resection (4).
References


Figure 1: Preoperative CT scan of enterocutaneous fistula; Postoperative images: Gross specimen displaying tan-brown mass; Postoperative CT scan of enterocutaneous fistula.