

Metastatic Rectal Adenocarcinoma Presenting As Cellulitis Of The Groin

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Abstract

Rectal carcinoma has been rarely reported to present with metastatic skin lesions such as skin nodules and cellulitis. Because of its rarity patients with atypical presentation often carry a misdiagnosis for many weeks or even months before the correct diagnosis is made, which can lead to poor prognosis. In patients with atypical skin manifestations and a history of per rectal bleeding and altered bowel habits, clinicians must have a high index of suspicion for rectal carcinoma. Digital rectal examination (DRE) and rigid sigmoidoscopy are essential to the surgical decision-making process. We present a case of a fifty-eight year old male with metastatic rectal adenocarcinoma who initially presented with cellulitis of the groin.

INTRODUCTION

Colorectal cancer (CRC) is a common and lethal disease. The occurrence of cutaneous metastases such as skin nodules and cellulitis is uncommon and typically signifies widespread disease with poor prognosis. Skin manifestations of adenocarcinoma of the rectum are even more rare, occurring in less than 4% of the patients and are generally ominous sign of widespread, terminal disease. The median survival of patients after the appearance of cutaneous metastatic lesions is 18 to 20 months (1, 2). While metastases can be found in any location of the skin, cutaneous rectal cancer most often metastasizes to the middle or lower dermis of the abdomen and the perianal area (3-6). Early detection of the metastatic disease to the skin can dramatically alter the treatment and the prognosis of the disease (1). We report the case of a fifty-eight year old male with metastatic rectal adenocarcinoma who initially presented with cellulitis of the groin.

CASE PRESENTATION

A 58-year-old male was referred by his General Practitioner (GP) with 3-month history of left groin swelling and pain. The GP performed an abdominal ultrasound, which showed cellulitis and mild abdominal lymphadenopathy. He was treated with a 2-week course of oral Doxycycline with minimal improvement in cellulitis. Six weeks after the oral antibiotic therapy the patient developed left lower extremity oedema. The GP repeated the ultrasound, which showed a soft tissue mass anterior to the iliac artery. Doppler

ultrasound of lower limbs was also performed which ruled out deep vein thrombosis. But the groin cellulitis continued to worsen and the swelling extended to the scrotum. The GP performed a MRI of the abdomen, which showed an irregular soft-tissue mass lying anterior to the left iliac vessels. A fine-needle biopsy of the mass was performed and the patient was referred to the hospital for further investigation and management. The biopsy showed a large cell malignancy of unknown origin. He was treated with intravenous antibiotics and analgesia for symptomatic relief. On admission, further history revealed a 3-year history of altered bowel habits with per rectal bleeding and increased frequency of defecation. This was not investigated or picked up in his previous presentations to the GP. Due to a change in his GP, this problem was not investigated further and was treated as an anal fissure by the new GP and no digital rectal examination was performed. He had no rectal pain or tenesmus. However, in the last 3 months he noticed generalised fatigue, shortness of breath, decreased exercise tolerance, intermittent night sweats and chills. No weight loss was reported. He is an ex-smoker with a 20 pack-year history of cigarette smoking and consumes 8-10 standard drinks of alcohol per day.

On physical examination he was pale and diaphoretic. His abdomen was non-distended and soft, with a tender erythematous, swollen and indurated area in the suprapubic and groin area. There was no guarding or rebound tenderness. This erythema was tracking down to both testes

which were tender, but no mass was palpable. On digital rectal exam there was normal tone but a palpable irregular fixed mass on the anterior, right lateral wall of the rectum and blood was noticed on the glove. He complained of rectal pain throughout the examination.

Laboratory investigation revealed elevated GGT of 89 U/L (normal range 15-73), CEA of 169 ug/L (normal range <5) and a normal full blood count.

An urgent lower GI endoscopy (sigmoidoscopy) was performed which showed a fungating vegetant tumour involving the rectum. Biopsies of the tumour confirmed moderately to poorly differentiated adenocarcinoma (Fig. 1). Staging computed tomography (CT) of the chest, abdomen, and pelvis showed multiple bilateral cavitating pulmonary nodules suspicious of metastases (Fig. 2, 3). CT of the abdomen showed thickening of the right lateral wall of the rectum (Fig. 4). There was diffuse intra-abdominal and pelvic lymphadenopathy, in particular bilateral external iliac chain, mesenteric and aorto-caval lymphadenopathy, consistent with metastatic adenocarcinoma of the rectum. No liver metastases were seen on the CT (Fig. 5, 6).

Whole body bone scan did not show any osteoblastic metastases. Treatment options and prognosis were discussed with the patient and his family. The patient preferred non-operative management and was referred to medical/radiation oncology. He is currently undergoing palliative chemotherapy with FOLFIRI (Fluorouracil, Irinotecan, Leucovorin) and Bevacuzimab.

Figure 1

Fig. 1: Histopathology of the rectal biopsy showing moderately to poorly differentiated adenocarcinoma

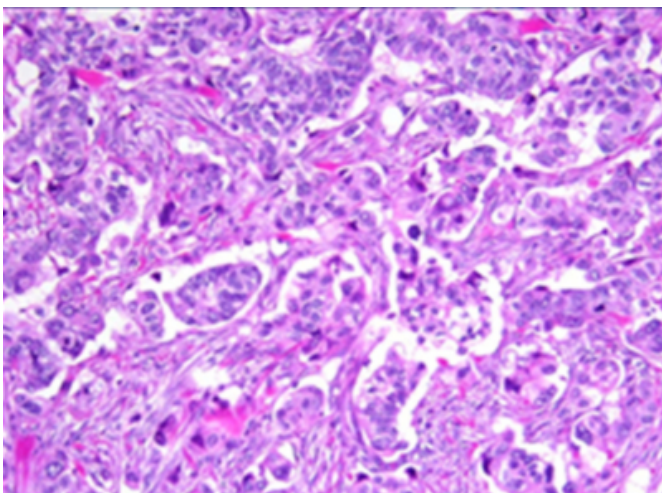


Figure 2

Fig. 2: CT of the chest demonstrating bilateral cavitating pulmonary nodules

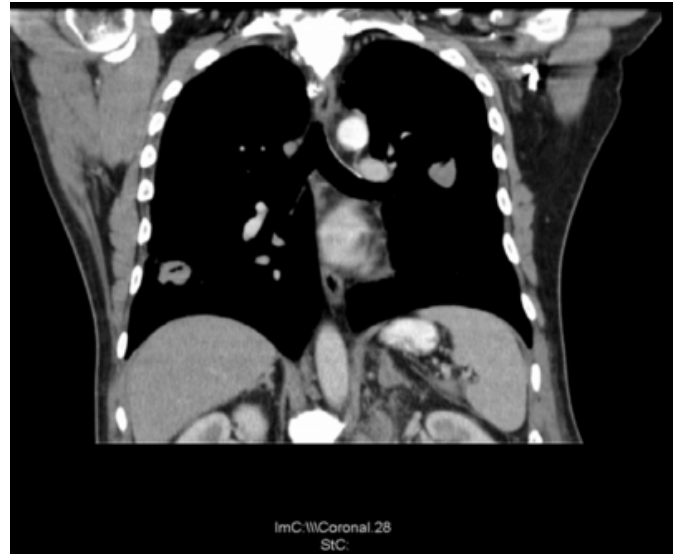


Figure 3

Fig. 3: CT of the chest demonstrating multiple cavitating pulmonary nodules.

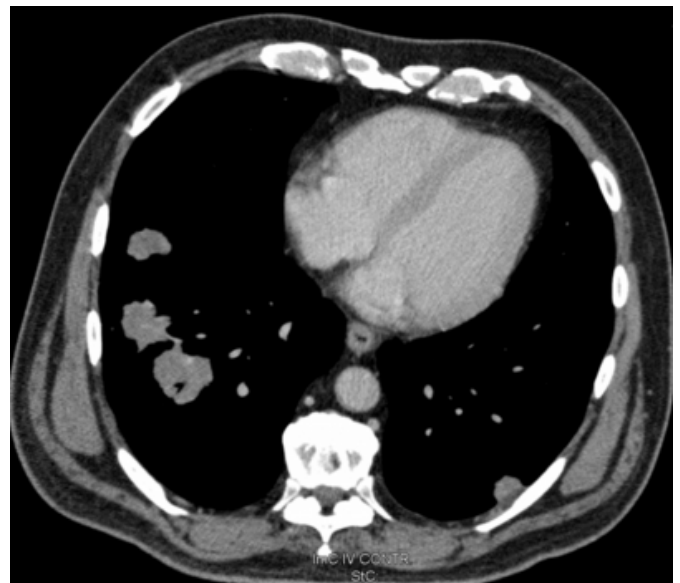


Figure 4

Fig. 4: CT of abdomen/pelvis showing enhancement and thickening of the wall of the rectum



Figure 5

Fig. 5: Coronal section of the abdominal CT shows diffuse intra-abdominal and pelvic lymphadenopathy and fat stranding.

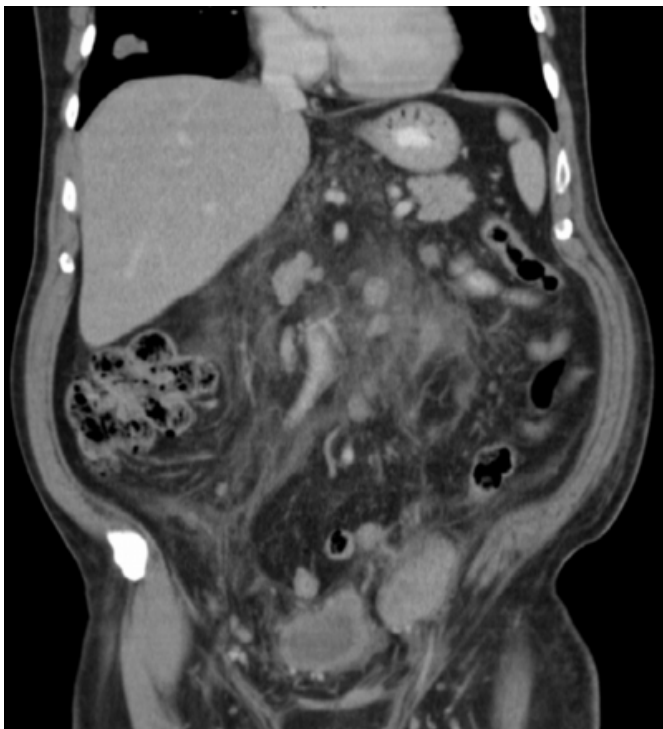
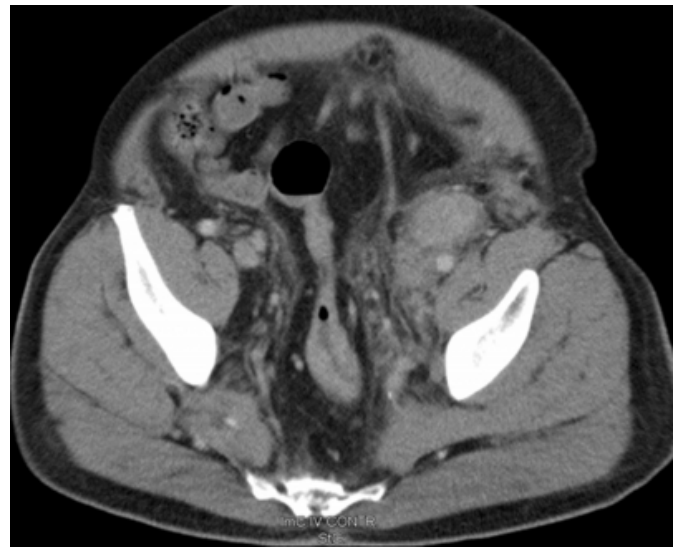


Figure 6

Fig. 6: CT of the abdomen showing bilateral external iliac chain lymphadenopathy with large matted lymphadenopathy visible on the left, with diffuse fat stranding.



DISCUSSION

Colorectal carcinoma is a slow-growing cancer, which is known to develop from benign adenomas to adenocarcinoma. Sixty percent of the cases occur in the rectum and distal colon, and around 35% in the proximal colon, with approximately 20 percent of patients having distant metastatic disease at the time of presentation (2). It can spread by lymphatic and haematogenous dissemination, as well as by contiguous and transperitoneal routes. Cancers arising at or below the peritoneal reflection (rectosigmoid and rectum) have a worse five-year survival rate than those arising more proximally. Furthermore, within the rectum, distal cancers have a worse prognosis than more proximal lesions. The most common metastatic sites are the regional lymph nodes, liver, lungs, and peritoneum, and patients may present with signs or symptoms referable to any of these areas (7). Because the venous drainage of the intestinal tract is via the portal system, the first site of haematogenous dissemination is usually liver, followed by lungs, bone, and many other sites, including brain. However, tumours arising in the distal rectum may metastasize initially to the lungs because the inferior rectal vein drains into the inferior vena cava rather than into the portal venous system (1, 2).

Rectal carcinoma has been rarely reported to present with metastatic skin lesions such as skin nodules and cellulitis (3-6). Because of its rarity, patients with atypical presentation often carry a misdiagnosis for many weeks or even months before the correct diagnosis is made. This case

highlights the importance of recognition of some atypical presentations of rectal carcinoma, which can lead to the prompt diagnosis of the underlying malignancy, timely administration of therapy, and ultimately, better prognosis. Therefore, in patients with atypical skin manifestations and a history of per rectal bleeding and altered bowel habits, clinicians must have a high index of suspicion for rectal carcinoma.

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