

A Rare Rendezvous with Carcinoma Sigmoid

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We present here to you a 75-year-old man who presented with features of lower urinary tract symptoms such as increased frequency and incomplete sense of voiding for 3 months. He did not have any other comorbidities. Clinical examination of the abdomen was normal. On digital rectal examination, grade II firm gland and small firm nodules in both upper poles were noted. Initially ultrasound of the abdomen and pelvis was done, which showed no significant abnormality except for enlarged prostate gland. Contrast-enhanced computed tomography (CT) abdomen and pelvis was done that demonstrated (a) enhancing asymmetric wall thickening involving the proximal sigmoid colon with a nodal mass in the presacral region with a contiguous lytic lesion in the sacrum, (b) multiple perirectal nodes and perirectal fascial thickening, (c) enhancing filling defect noted in the inferior mesenteric vein by the nodal deposit—tumor thrombus involving the portal venous system (►**Fig. 1**), (d) enhancing filling defect noted in the right internal iliac vein and the inferior vena cava, with distension of the veins—tumor thrombus involving the systemic venous

system (►**Fig. 2**), and (e) liver and lung metastasis. Concluded as an aggressive lesion of neoplastic etiology involving the sigmoid colon with a presacral nodal deposit, associated with transvenous spread involving both the portal venous system and the systemic venous system. The disease was staged as T3N2bM1.



Fig. 1 Enhancing asymmetric wall thickening involving the sigmoid.



Fig. 2 Tumor thrombus involving the inferior mesenteric vein (straight arrow) and inferior vena cava (curved arrow).

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Further, the patient underwent a colonoscopy, and a biopsy of the lesion was taken, which came out as a well-differentiated adenocarcinoma of the sigmoid colon.

His blood investigations revealed low hemoglobin of 9 g/dL and a very high level of carcinoembryonic antigen of 84.75 ng/mL.

Lymphatic, hematogenous, and direct spread are the three basic ways that tumors metastasize.¹ Venous tumor thrombus in colorectal cancer is an uncommon occurrence. Tumor thrombus from rectal cancer can affect either the internal iliac veins or the inferior mesenteric vein due to the dual venous drainage through the portal and systemic venous system. Our patient had involvement of both portal and systemic venous system.² Out of 176 patients with advanced colorectal cancer, Sato et al reported that three instances (1.7%) had venous tumor thrombosis.³ Venous tumor thrombosis appears as a hypoenhancing area on a CT scan. Thrombosis can be differentiated from a blood clot with a thrombus showing intense radiotracer uptake positron emission tomography.⁴ The liver is the most frequent site of colorectal cancer metastasis, with the lung coming in second.⁵ Our patient had both lung and liver metastasis.

The initial diagnosis is typically made with a colonoscopy or air-barium enema examination.⁶ CT frequently shows a heterogeneously enhancing soft-tissue mass that constricts the intestinal lumen in patients with colorectal cancer. Large masses produce constipation and bleeding per rectum as symptoms.⁶

Complications and extensions are demonstrable on CT. Obstruction, perforation, and fistula complications of primary colonic cancers are easily observable.⁶ Local extension of the tumor appears as an extracolonic mass or simply as thickening and infiltration of pericolonic fat. Our patient had an enhancing asymmetrical wall thickening involving the sigmoid colon with adjacent pericolonic fascial thickening, conglomerate nodal mass, lytic lesion with soft tissue component in the sacrum, and multiple perirectal lymph nodal involvement.

The symptoms of overflow incontinence can be explained by the involvement of the S2, S3, and S4 nerve roots by the nodal deposit. S2, S3, and S4 nerve roots carry the parasympathetic innervation to the bladder, and the involvement of these nerve roots causes hypoplastic bladder and overflow incontinence.

There is a report of an atypical presentation of carcinoma sigmoid with right inguinal nodal involvement.⁷ However, a presentation similar to our case was not found in any of the case reports.

On rare occasions, solitary lung metastasis without hepatic metastasis can be found. This is because the liver is a frequent source of metastases since the portal vein serves as

the venous drainage system for the colon and upper rectum. The lower rectum, however, contains two drainage channels; the inferior mesenteric vein and the portal vein of the liver are both where the superior hemorrhoidal vein empties. However, the inferior and middle hemorrhoidal veins empty into the inferior vena cava before entering the pelvic veins.⁶ In our patient, both the inferior mesenteric vein and the right internal iliac and inferior vena cava were thrombosed, which would explain the liver and lung metastasis.

With the increased use of CT as the initial imaging modality in patients with a variety of gastrointestinal symptoms, radiologists may be the first to raise the concern of colon cancer based on CT findings. Since our patient presented with features of overflow incontinence, neither bowel-related symptoms nor anemia; the CT scan played a paramount role in detecting and staging the disease, and in detecting tumor thrombus. We postulate that the nodal mass infiltrating the sacral parasympathetic nerve roots caused overflow incontinence. Reports of carcinoma sigmoid presenting with overflow incontinence are none in the current literature. To our knowledge, there are no reports describing carcinoma sigmoid with tumor thrombus involving the portal venous system, and the nodal mass having systemic venous extension. The prognosis for our patient was greatly impacted by the existence of tumor thrombus, liver, and lung metastases. Owing to the lack of available published articles on the diagnosis and treatment of atypical presentations of colon cancer, we believe that sharing our experience would contribute to enriching our knowledge and tailoring the diagnosis and treatment.

Conflict of Interest

None declared.

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