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Case Report

Carcinoma Cecum Presenting as Right Gluteal Abscess Through Inferior Lumbar Triangle Pathway—Report of a Rare Case

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Gluteal abscess commonly follows intramuscular injections with contaminated needles. Carcinoma cecum is known to present with pericolic abscess due to microperforations and may rupture intraperitoneally. Gluteal abscess secondary to perforated carcinoma cecum with pericolic abscess is extremely uncommon. A 50-year-old woman who was receiving intramuscular iron injections for anemia presented with a 10 × 10-cm abscess in the right gluteal region and a vague mass in the right iliac fossa. After investigations, a diagnosis of perforated carcinoma cecum with pericolic abscess tracking into the right gluteal region was made, and incision and drainage were done. Fine-needle aspiration cytology from the cecal growth revealed adenocarcinoma. Unfortunately, the patient was not willing to undergo definitive treatment. This case is being reported for its rarity and as an uncommon etiology for a common condition.

Key words: Gluteal abscess – Carcinoma cecum – Inferior lumbar triangle

Gluteal abscess is a common condition and most commonly follows intramuscular injections with contaminated needles.[1,2] Carcinoma cecum is known to present with pericolic abscess due to microperforations and may rupture intraperitoneally. Retroperitoneal abscess is rare with carcinoma cecum. Gluteal abscess secondary to perforated carcinoma cecum with pericolic abscess is extremely uncommon. Here we report a case of carcinoma cecum presenting as right gluteal abscess for its rarity and diagnostic challenge and to review its pathogenesis.

Case Report

A 50-year-old woman presented with swelling and pain in the right gluteal region, which had been

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ongoing for 1 week. She had been receiving intramuscular iron injections for the treatment of iron-deficiency anemia. Examination revealed a 10-cm^2 abscess in the right gluteal region. There was a vague mass in the right iliac fossa. Ultrasound showed a 5.2 × 4.5-cm heterogenous hypoechoic mass in the cecal region. The right gluteal region showed focal, inflamed subcutaneous tissue with a 1.5-cm defect in the right parietal wall just above the iliac crest, with bowel loops and omentum forming a lumbar hernia below the deep muscular plane. Plain radiograph of the pelvis showed no bony abnormality. Contrast-enhanced computed tomogram of the abdomen showed wall thickening in the cecal region with air in the region of the paraspinal muscles (Fig. 1). A diagnosis of perforated carcinoma cecum with pericolic abscess tracking into the gluteal region was made, and incision and drainage were done. Fine-needle aspiration cytology from the cecal growth revealed adenocarcinoma. Definitive treatment could not be done because the patient did not consent to surgery. This case is being reported because it is rare and an uncommon etiology for a common condition.

Fig. 1 Contrast-enhanced computed tomogram of the abdomen showing cecal wall thickening, with collection in the iliopsoas region tracking into the subcutaneous plane (arrow).

Discussion

The most common cause of gluteal abscess is parenteral drug administration using contaminated needles. The other causes of gluteal abscess include infected hematoma, seroma, posttraumatic sepsis, and spread of intrapelvic sepsis to the gluteal region. Rarely it may be due to spread from colonic cancer or metastatic bronchogenic carcinoma.[1,2]

Carcinoma cecum is often silent, with presentations including anemia, appendicitis, and pelvic mass. It very rarely presents with posterior cecal perforation leading to psoas abscess, and also presents with peritonitis following free perforation.[3] The usual complications are bleeding and obstruction. Perforation of colorectal cancer occurs in 2.6% to 9% cases and is associated with a significant mortality and morbidity. Perforation is usually intraperitoneal and only rarely is retroperitoneal.[4] Colonic perforation occurs because of tumor necrosis, or it may be a diastatic perforation following proximal colon blowout from an obstructed tumor with a competent ileocecal valve.[4,5] The symptoms of colon carcinoma with retroperitoneal perforation are subtle; hence, precise preoperative diagnosis is somewhat difficult, resulting in prolonged sepsis and, therefore, high morbidity and mortality.[6] Abscess is seen in 0.3% to 0.4% of colonic cancers, and it is the second most common complication of colonic perforations.[6]

Pericolic abscess is due to microperforations in the malignant growth or ulcer. These abscesses commonly remain localized in the paracolic region or may develop into a pelvic abscess, but they can also track along various tissue planes and have been reported to present as a flank abscess, psoas abscess,[6] or even a subcutaneous abscess on the trunk.[7]

The inferior lumbar triangle is an area of relative weakness in the abdominal wall because of deficiency of external muscle layers. This forms the basis for the appearance of subcutaneous discoloration in the costo verterbral angle (Grey Turner sign) in acute pancreatitis and rare cases of traumatic lumbar hernias.[8] The inferior lumbar triangle is bounded by the posterior free margin of the external oblique muscle in front, the latissmus dorsi muscle behind, and the iliac crest below. This pathway has also been implicated as a cause of necrotizing fasciitis following xanthogranulomatous and emphysematous pyelonephritis. Incision and drainage is the standard treatment for gluteal abscess. Microorganisms of the normal intestinal flora obtained from the fistula are useful to determine the possibility of bowel involvement.[6]

Colonoscopy is contraindicated in patients with pericolic abscess and microperforations. Ultrasound-guided fine-needle aspiration usually clinches the diagnosis of malignancy. The definitive management for carcinoma of the cecum with pericolic abscess is radical right hemicolectomy and further adjuvant chemotherapy or radiotherapy based on pathological staging.

Conclusion

Gluteal abscess is a common condition, and carcinoma cecum should be remembered as one of the rare causes, especially when an elderly patient presents with anemia, and prompt diagnosis can go a long way in instituting early treatment, thereby reducing the cancer-related morbidity and mortality.

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References

1. Wolverson MK, Jagannadharao B, Sundaram M *et al*. Computed tomography in the diagnosis of gluteal abscess and other peripelvic fluid collections. *J Comput Assist Tomogr* 1981;**5**(1): 34–38
2. Tsukuda K, Ikeda E, Miyake T *et al*. Abdominal wall and thigh abscess resulting from the penetration of ascending colon cancer. *Acta Med Okayama* 2005;**59**(6):281–283
3. Fotiadis C, Macheras A, Charalampopoulos A, Karatzas G. Perforated cecal carcinoma presenting as a retroperitoneal abscess. *Ann Gastroenterol* 2004;**17**(4):410–412
4. Anwar MA, D'Souza F, Coulter R *et al*. Outcome of acutely perforated colorectal cancers: experience of a single district general hospital. *Surg Oncol* 2006;**15**(2):91–96
5. Chen HS, Sheen-Chen SM. Obstruction and perforation in colorectal adenocarcinoma: an analysis of prognosis and current trends. *Surgery* 2000;**127**(4):370–376
6. Kobayashi H, Sakurai Y, Shoji M *et al*. Psoas abscess and cellulitis of the right gluteal region resulting from carcinoma of the cecum. *J Gastroenterol* 2001;**36**(9):623–628
7. Yeo ES, Ng KH, Eu KW. Perforated colorectal cancer: an important differential diagnosis in all presumed diverticular abscesses. *Ann Acad Med Singapore* 2011;**40**(8):375–378
8. Ishigami K, Bolton-Smith JA, Deyoung BR, Barloon TJ. Necrotizing fasciitis caused by xanthogranulomatous and emphysematous pyelonephritis: importance of the inferior lumbar triangle pathway. *AJR Am J Roentgenol* 2004;**183**(6):1708–1710