



Caecal Cancer Presenting As A Complex Abscess After Trauma: Literature Review and Case Report

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Abstract

Complex abscesses crossing multiple fascial planes are an uncommon presentation of caecal cancer, particularly in the setting of a preceding trauma. A literature review identified only 15 previously published cases. We describe a case of caecal malignancy in a 57-year male patient presenting with difficulty walking and abdominal pain, three weeks after being charged by a bull.

Case History

A 57-year old gentleman with no significant past medical history presented to a regional hospital approximately three weeks after being pinned by the lower abdomen against a metal fence by a bull. He had experienced right hip pain with flexion for two weeks, and a one week history of more acute symptoms of anorexia, right lower quadrant abdominal pain, unintentional loss of 6kg of weight, visible haematuria and subjective fevers. Computed tomography (CT) demonstrated marked mural thickening of the terminal ileum, caecum and proximal ascending colon with multiple adjacent enlarged ileocolic nodes as well as a complex abscess adjacent to the bowel in the right lower quadrant and extending into the anterior abdominal wall musculature. It also extended posteriorly along psoas and iliacus muscles to the level of the femoral head (Figure 1A, 1B). The differentials at this time were that of a traumatic, inflammatory or malignant process. He was commenced on IV ceftriaxone and metronidazole and transferred to a tertiary colorectal surgery centre for ongoing management. Due to local cellulitis in the right lower quadrant, fever and elevated inflammatory markers the patient underwent a procedure where the presumed abscess cavity was incised directly through the anterior abdominal wall and washed out, with laparoscopy performed. This confirmed that the abscess cavity was predominantly intra-peritoneal and a corrugated drain tube was placed. No obviously malignant process was appreciated at this time and specimens sent at the time demonstrated infection only.

The patient had improvement of symptoms following this procedure and a subsequent CT showed improvement in the size of the abscess cavity. The tube continued to drain >30 mL of purulent and possibly faeculent fluid daily, and two weeks after the drainage procedure a colonoscopy was performed to look for evidence of a fistula. At colonoscopy, a fungating, malignant-appearing mass was seen at the caecal pole with biopsies demonstrating dysplastic colonic mucosa, focally reaching high grade, with invasion unable to be excluded. Staging scans did not demonstrate any evidence of metastatic disease.

After multi-disciplinary team (MDT) discussion, the patient was recommended for neoadjuvant oncological therapy. He underwent formation of a defunctioning loop ileostomy prior to his radiation therapy. After successful completion of neoadjuvant external beam radiation with sensitising 5-fluorouracil and then twelve cycles of FOLFOX chemotherapy, he proceeded to definitive surgical management. Repeat staging pre-operatively with a PET-CT showed a PET-avid lesion at the caecum and involving the psoas and iliacus muscles (Figure 2).

Approximately nine months after his initial hospital presentation, he underwent right hemicolectomy with en bloc resection of the involved portion of the psoas major muscle. An open medial to lateral approach was employed, with formal ligation of the ileocolic and right branch of middle colic artery. No true right colic vessel was identified. The duodenum and ureter were identified and avoided. A LigaSure device was used for mobilisation. The posterior aspect of the caecum eroded through the retroperitoneum with obvious tumour involvement of the inferior aspect of the psoas major muscle. With very careful dissection, this was resected en bloc with the colonic specimen. An end-to-side ileo-transverse anastomosis was performed. The diverting loop ileostomy was left undisturbed and will be reversed in a subsequent surgery. Histopathology demonstrated an American Joint Committee on Cancer 8th edition T4N1M0 caecal adenocarcinoma with local invasion and 3/16 positive lymph nodes but clear surgical margins. The patient had a prolonged ileus that developed post-operatively, which required treatment with drainage via a naso-gastric

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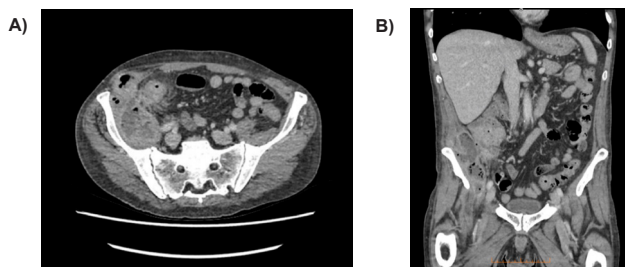


Figure 1A, B: CT (sagittal and coronal slices) demonstrating inflamed and thickened right colon with pericolic stranding, complex gas and fluid filled collection involving right lower quadrant, retroperitoneum and extending into the thigh

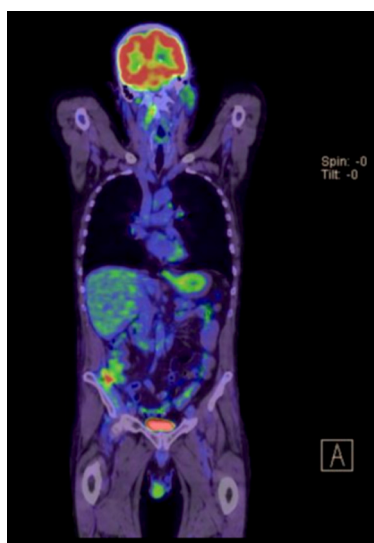


Figure 2: PET scan showing avid lesion at caecum and involving iliacus muscle

tube and total parenteral nutrition for ten days. He had no limitations in hip mobility. He was discharged after a fourteen day admission and has commenced adjuvant FOLFOX chemotherapy.

Discussion

A literature review was performed of the PubMed database with the key words "caecal cancer" OR "cecal cancer" AND "abscess". There were 189 search results. Of these, 18 were chosen for abstract review based on title relevance. 12 papers were identified, detailing 15 cases of caecal cancer presenting primarily as an abscess of the flank, anterior abdominal wall or thigh.

Three of these patients presented with severe fasciitis (two of thigh, one of anterior abdominal wall) requiring extensive debridement and sepsis management before definitive cancer diagnosis and treatment could be undertaken [1-3]. One of the cases was very similar to our own in that the primary complaint had been that of hip pain and difficulty walking and imaging demonstrated an extensive abscess across multiple fascial planes involving both the retroperitoneum and thigh [4]. To highlight the complexity of concurrent abscess and malignancy, one patient had complete cure despite disease spreading to the abdominal wall along the tract of a drain tube [5], another declined definitive cancer management in the setting of requiring significant abdominal wall and colonic resection [6], and another presented one month after palliative right hemicolectomy with recurrence at the site of the drain tube [7]. One unique case describes the unusual situation of finding perforated caecal cancer causing sepsis within an inguinal hernia [8]. These patients underwent a variety of treatments from palliation through to neoadjuvant chemoradiation and definitive surgery according to

tumour stage and local practices[9-12]. The longest available report of disease free survival is five years [13].

Retroperitoneal and intraperitoneal abscess causing hip pain is an uncommon first presentation of a caecal tumour. Adding to the complexity in our patient is the history of a blunt abdominal injury just prior to the onset of symptoms. He initially sought the consultation of a chiropractor thinking that this was a musculoskeletal complaint. We theorise that the injury may have disrupted the tumour and caused it to invade locally.

Upon presenting to an Emergency Department and having a CT scan, it was not clear whether this was a traumatic, inflammatory or malignant process. This demonstrates again that CT, especially in the presence of other pathology, is poor at identifying luminal disease. The treatment required to control the sepsis caused by the abscess meant that there was a delay to making a definitive diagnosis. Despite further adjuvant therapy, and clear surgical margins, surveillance will continue to monitor for evidence of local recurrence. The patient will have completed all therapy and have had his stoma reversed approximately eighteen months after initially presenting.

This case is presented as a reminder to keep a broad list of differentials and to consider what investigations may be required to exclude malignancy in patients who present with an unusual or complex intra-abdominal abscess.

References

- Marron CD, McArdle GT, Rao M, Sinclair S, Moorehead J. Perforated carcinoma of the caecum presenting as necrotising fasciitis of the abdominal wall, the key to early diagnosis and management. *BMC Surg.* 2006 Sep;6:11.
- Patel L, Teklay S, Wallace D, Skillman J. Perforated caecal carcinoma masquerading as lower limb necrotising fasciitis: lessons learnt. *BMJ Case Rep.* 2018 Jun;2018.
- Ng NY, Tsoon M, Thomson SE. Psoas abscess and severe fasciitis due to a caecal carcinoma. *BMJ Case Rep.* 2015 Jan;2015.
- Fujiwara Y, Nakajima M, Tomochika S, Matoba K. [A case of appendiceal cancer with abdominal, intraabdominal, and retroperitoneal abscesses]. *GanTo Kagaku Ryoho.* 2014 Nov;41(12):1665-1667.
- Muthukumarasamy G, Steele P, Sharp C. Abdominal wall abscess due to penetrating caecal cancer: an unusual presentation. *J Gastrointest Cancer.* 2012 Mar;43(1):131-132.
- Karthikeyan VS, Sistla SC, Ram D, Ali SM, Velayutham SS, Vijayaraghavan N. Carcinoma cecum presenting as right gluteal abscess through inferior lumbar triangle pathway--report of a rare case. *Int Surg.* 2014 Jul-Aug;99(4):371-373.
- Meshikhes AW, Al-Otaibi MM, Al-Amer HA, Al-Saif OH. Retroperitoneal abscess as an initial presentation of cecal carcinoma. *Saudi Med J.* 2002 Aug;23(8):999-1001.
- Benfatto G, Catania G, Tenaglia L, Lo Menzo E, Centoze D, et al. Abscess and cecum carcinoma in inguinal hernia: case report. *G Chir.* 2006 Jun-Jul;27(6-7):262-264.
- Das A, Hureibi K, Tayyab M, McCullough P. Caecal cancer presenting as leg erythema and a lung opacity. *BMJ Case Rep.* 2017 Sep 7;2017.
- Mohandas SK, Mazarello F, Bisset R. Right gluteal abscess: an unusual presentation of perforated caecal adenocarcinoma. *J Gastrointest Cancer.* 2010 May;41(4):285-287.
- Okita A, Kubo Y, Tanada M, Kurita A, Takashima S. Unusual abscesses associated with colon cancer: report of three cases. *Acta Med Okayama.* 2007 Apr;61(2):107-113.
- Mann GN, Scoggins CR, Adkins B. Perforated cecal adenocarcinoma presenting as a thigh abscess. *South Med J.* 1997 Sep;90(9):949-951.
- Omoto T, Endo S, Ikehara K, Hidaka E, Ishida F, Tanaka J, et al. [A case of cecal cancer with abdominal wall abscess]. *GanTo Kagaku Ryoho.* 2012 Feb;39(2):297-299.