

Delayed Port Site Abscess After Laparoscopic Colectomy Mimicking Port Site Recurrence

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Abstract

A 72-year-old man presented with persistent pain at the port site at the right lower abdomen 3 months after laparoscopic low anterior resection for rectal cancer. His serum CEA, CA19-9, and C-reactive protein levels were within normal limits. Computed tomography revealed an irregular capsulized subcutaneous mass in the right lower quadrant. To arrive at a differential diagnosis of port site abscess or port site recurrence, we biopsied the lesion. Pathological examination showed granulomatous inflammation of the subcutaneous tissue, suggesting abscess of the port site. Delayed port site abscess after laparoscopic colorectal resection is a rare clinical manifestation and sometimes difficult to discriminate from port site recurrence. Therefore, complete resection by securing an adequate surgical margin is essential to prevent in case definitive preoperative diagnosis is not obtained.

Keywords: Colorectal; Laparoscopy; Port site; Abscess

Description

A 72 year old man presenting with hematochezia was admitted to our institute where we arrived at a diagnosis of rectal cancer. After preoperative examination, we performed laparoscopic low anterior resection. His postoperative pathological diagnosis was rectal adenocarcinoma (muc>tub2), T4b (omentummajus/peritoneum), N2, M0, according to the International Union against Cancer/Classification of Malignant Tumours criteria. No peritoneal dissemination was observed intraoperatively, and the patient was discharged with no reports of morbidity during the postoperative course. Three months after discharge, he consulted us for persistent pain likely caused by a swollen elastic hard mass in the right lower quadrant (Figure 1).



Figure 1: swollen elastic hard mass in the right lower quadrant

On physical examination, tenderness and pain around the mass was noted, although there was no history of redness, pyrexia, or elevated C-reactive protein level, which are established indicators of

inflammation. His symptoms did not subside after administration of antibiotics. Serum CEA and CA19-9 levels were maintained within normal limits. A computed tomography (CT) scan revealed a capsulized irregular mass, 48 mm in diameter, at the right lower port site (Figure 2a).



Figure 2a: Computed tomography (CT) scan of a capsulized the right lower port site

CT imaging of the inner part of the mass suggested abscess formation or central necrosis of a recurrent tumor. In addition, a second tiny capsulized mass was observed just below the middle incision (Figure 2b).

Positron emission tomography also showed a high level of aggregation (Figure 3a, 3b) however, cytodiagnosis by fine needle aspiration was not informative. Although diagnostic imaging and other laboratory examinations did not provide decisive findings to discriminate abscess formation from port site recurrence, the mass increased in size and the pain persisted. Therefore, we surgically resected the mass to relieve the symptoms and arrive at a definitive pathological diagnosis.



Figure 2b: Capsulized mass below the middle incision

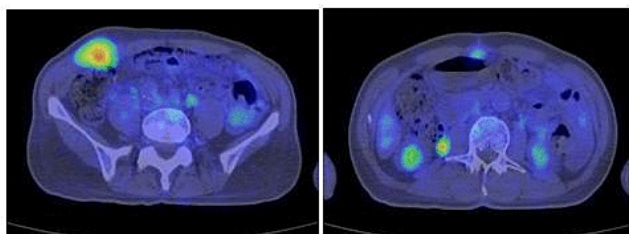


Figure 3: Positron emission tomography showing a high level of aggregation

Following a skin incision in the right lower quadrant, we resected the mass from the subcutaneous tissue. And although it was strongly adhered to the internal edge of the external and internal oblique muscles, a sufficient amount of tissue was removed to obtain an

adequate surgical margin. However, as a result, a substantial size of defect was made at the abdominal wall. The lesion under the middle incision was excised through the defect and then reconstructed by sliding the flap of the tensor fasciae latae muscle. He was discharged on postoperative day 18 and followed up for 5 months after a second operation. Although there was no recurrence, the pathological findings of the specimen indicated granulomatous inflammation with abscess formation. On postoperative examination, we found aggregation of histiocytes around the necrotic foci; however, a bacterial culture was negative. Wound infection is a significant cause of morbidity, accounting for 3.4% of complications following laparoscopic colorectal resection, with an even higher incidence among the elderly [1]. A literature review retrieved no reports with a specific focus on port site abscess formation following laparoscopic colorectal resection, and there were relatively few reports describing delayed port site subcutaneous abscess formation after gastrointestinal laparoscopic surgery [2,3]. As a consequence, we considered that delayed port site abscess after laparoscopic colorectal resection is a rare complication and may be misdiagnosed as a recurrence of port site infection. Particularly, for those patients who do not exhibit typical signs of inflammation and in whom it is difficult to discriminate from port site recurrence, similar to our case, it is important to perform excisional biopsy with an adequate surgical margin.

References

1. Grosso G, Biondi A, Marventano S, Mistretta A, Calabrese G, Basile F (2012) Major postoperative complications and survival for colon cancer elderly patients. *BMC Surg* 12: Suppl 1: S20.
2. Hand AA, Self ML, Dunn E (2006) Abdominal wall abscess formation two years after laparoscopic cholecystectomy. *JLS* 10: 105–107.
3. Reyna D, Vélez SE (2003) Peritoneal abscess formation four years after laparoscopic cholecystectomy. *J Laparoendosc Adv Surg Tech A* 13: 73–75.