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Letters to the Editor

Colonic neoplasm in a strangulated inguinal hernia

Key words: Hernia. Incarceration. Neoplasm. Hartmann's procedure.

Dear Editor,

Inguinal hernia and colonic neoplasm are usual diseases. However, colonic neoplasm occurring in an inguinal hernia sac is rare. Pre-operation diagnosis and appropriate surgical intervention in these patients remain a technical challenge for surgeon. Clinicians must have a high index of suspicion for these cases and early management can ensure excellent prognosis. In this article, we report a case of colonic neoplasm presenting a strangulated inguinal hernia.

Clinical case

The 83-year-old male was admitted to our emergency department due to watery diarrhea, abdominal distention, and fever on and off for 10 days. He denied any significant medical or surgical history. On physical examinations, a palpable painful mass was noted in the left groin for long time. Blood work revealed the white-cell count was 16,300 cells/mm^3 with neutrophil predominance, the hemoglobin was 11.0 mmol/l, the blood glucose was 531 mg/dl, sodium was 153 mmol/l, and potassium was 2.5 mmol/l. Ultrasound examination of the left inguinal mass revealed a huge heterogeneous lesion with fluid accumulation. Subsequent computed tomography of the abdomen revealed segmental wall thickening of the sigmoid colon with herniated into left scrotal sac (Figs. 1 and 2). A colonic neoplasm in inguinal hernia was highly suspected.

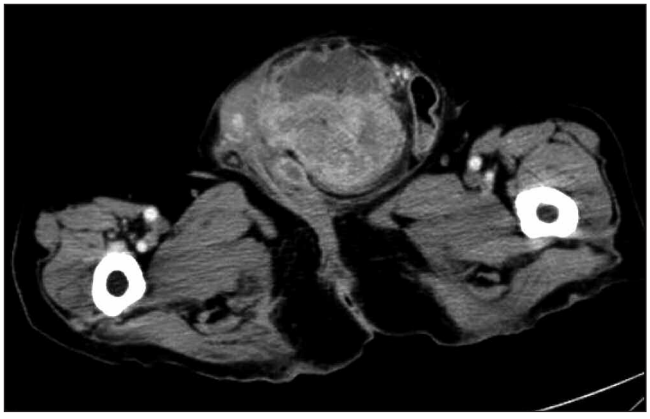

Fig. 1. Computed tomography of the abdomen (cross sectional) revealed segmental wall thickening of the sigmoid colon.

The patient underwent exploration laparotomy with lower midline incision initially. Subsequently, a left oblique inguinal incision was prescribed to deliver the incarcerated mass into abdominal cavity. Exploration laparotomy with Hartmann's procedure and hernioplasty were performed. The histopathologic examination of the surgical specimen confirmed the adenocarcinoma of sigmoid colon, measured 9 x 7 x 5 cm (Fig. 3).

Discussion

Inguinal hernia is a common condition, and approximately 10% of inguinal hernia with bowel contents incarcerated (1). However, malignancy of the colon presenting in incarcerated inguinal hernia is rare, occurring in less than 0.5% of cases

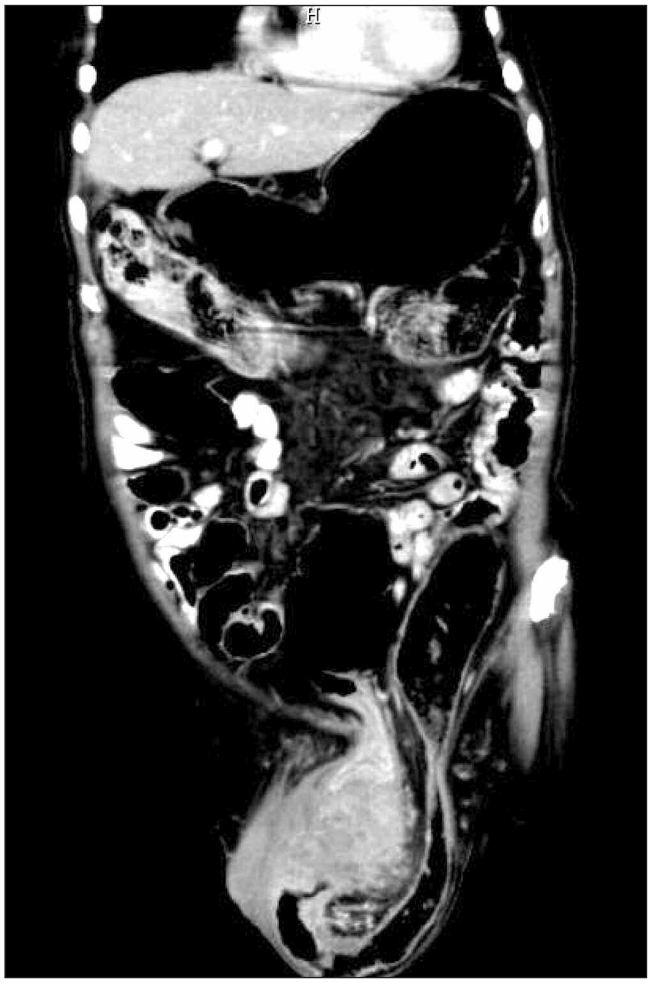

Fig. 2. Computed tomography of the abdomen (coronal view) revealed a huge neoplasm in sigmoid colon with herniated into left scrotal sac.

Fig. 3. The specimen shows the huge tumor of sigmoid colon, measured 9 x 7 x 5 cm.

(1,2). A patient with a history of intra-abdominal malignancy presented with a new hernia should be investigated for recurrence (3). Systemic symptoms, such as unexplained weight loss, anemia, altered bowel habits or rectal bleeding, should awaken to the possibility of a colonic neoplasm. Besides, an abnormally nodular sac noted during surgery should be examined to exclude malignancy.

Lejars classified them into three groups based on the anatomical relationship: intra-saccular, saccular, and extra-saccular (2,4). Intra-saccular tumors include primary tumors incarcerated into the hernia (2), like this presentation. And saccular tumors are primary or metastatic tumors involve the peritoneum (2). It may due to the disseminated tumor cells in the peritoneal cavity implanted in a coexistent inguinal hernia sac. In statistics, the incidence of intra-saccular tumors is rare than the metastatic saccular tumors (5).

The optimal surgical procedures remained controversial. In our presentation, whether inguinal incision alone or laparotomy alone were not adequate for dissection of neoplasm. It is because the neoplasm and surrounding inflammatory lesion could not be delivered into the abdomen through the internal ring. Severe surgical approaches had been published before. Jaime Ruiz-Tovar et al. performed formal laparotomy and inguinal incision (4). Knecht et al. pulled out the sigmoid colon and mesentery through the internal ring, resected the sigmoid colon and repaired the hernia via the internal ring (6). Wlodarczyk et al. performed subtotal colectomy with ileorectal anastomosis and hernia repair form the peritoneal cavity (7). However, radical resection of colonic neoplasm with secure hernioplasty was the principle for management.

C. M. Mai[1,2], C. Y. Chen[1], K. F. Hsu[1], C. W. Hsiao[1], S. W. Jao[1] and C. C. Wu[1]

[1]Division of Colon and Rectal Surgery. Department of Surgery. Tri-Service General Hospital. National Defense Medical Center. Taipei, Taiwan. Republic of China. [2]Department of Surgery. Huailien Armed Forces General Hospital. Huailien, Taiwan. Republic of China

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