J Med Sci 2024;44 (1):39-41
DOI: 10.4103/jmedsci.jmedsci_271_22

CASE REPORT

Difficult Case of Peritoneal Serous Papillary Carcinoma with an Unusual Complication

Fu-Chieh Hsu[1], Yi-Chiao Cheng[2], Yu-Chi Wang[3]

Departments of [1]Surgery and [3]Obstetrics and Gynecology, Tri-Service General Hospital, National Defense Medical Center, [2]Division of Colon and Rectal Surgery, Department of Surgery, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan

Peritoneal serous papillary carcinoma (PSPC) is a rare disease that arises in the peritoneal lining of the abdomen and pelvis, without a discriminative primary tumor site. We are presenting the case of a 72-year-old woman diagnosed with PSPC status postdebulking operation in 2017. This year, she experienced left-sided abdominal pain and had a fever for 2 days. After the series of examinations, an unusual complication of a subcutaneous abscess in the anterior abdomen and chest wall was suspected. We searched for any complications of PSPC; however, subcutaneous emphysema and abscess formation over the chest wall and abdominal wall have not been reported to date. The final diagnosis was carcinomatosis, which invaded and perforated the abdominal wall with tumor necrosis or abscess formation.

Key words: Peritoneal serous papillary carcinoma, carcinomatosis, subcutaneous abscess, debulking surgery

INTRODUCTION

Peritoneal serous papillary carcinoma (PSPC) is a rare disease that arises in the peritoneal lining of the abdomen and pelvis without a discriminative primary tumor site and mostly occurs in postmenopausal women.[1,2] It is histologically characterized as an exophytic papillary tumor originating from the surface epithelium of the ovary.[3] In this report, we describe the case of a 72-year-old woman diagnosed with PSPC with an unusual complication of subcutaneous abscess in the anterior abdomen and chest wall.

CASE REPORT

We present a report of a 72-year-old female patient diagnosed with PSPC, AJCC pT3cN0M0, Federation of Gynecology and Obstetrics Stage IIIC, status postdebulking operation in 2017. She continued receiving several courses of platinum-based chemotherapy till 2022 due to disease progression with carcinomatosis, spleen, and cecum metastasis. In June 2022, she had left-sided abdominal pain and fever for the past 2 days and came to the Emergency Department for help. Tender and crepitus sounds were found over the left lower neck, left chest wall to the left abdomen on physical examination, indicating subcutaneous emphysema. Serum analysis showed leukocytosis with neutrophilia, elevated C-reactive protein, and lactate levels. Chest and plain abdomen X-ray revealed subcutaneous emphysema at the left lower neck and left chest wall extended to the left abdomen wall [Figure 1a and b]. Computed tomography of the chest and abdomen showed subcutaneous emphysema and abscess formation in the left chest wall extending to the left abdominal wall [Figure 2a and b]. Under the impression of hollow organ perforation or carcinomatosis invading through the peritoneum, causing subcutaneous necrosis and abscess formation, an exploratory laparotomy was performed immediately. During the operation, we found a large cavity over the left lower abdomen subcutaneous containing

Received: December 14, 2022; Revised: January 13, 2023; Accepted: February 02, 2023; Published: March 14, 2023
Corresponding Author: Dr. Yi-Chiao Cheng, Division of Colon and Rectal Surgery, Department of Surgery, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan. Tel: +886919706587; Fax: +886-287927411. E-mail: ndmcjoe@gmail.com

How to cite this article: Hsu FC, Cheng YC, Wang YC. Difficult case of peritoneal serous papillary carcinoma with an unusual complication. J Med Sci 2024;44:39-41.

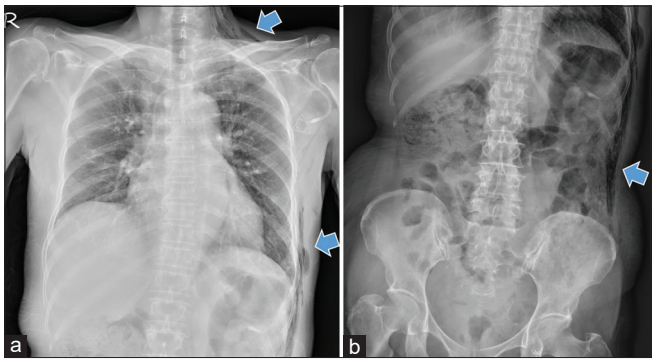

Figure 1: (a and b) Chest and plain abdominal radiography revealed subcutaneous emphysema (blue arrow) at the left lower neck and left chest wall extending to the left abdominal wall

an abscess, as well as carcinomatosis of small bowel mesentery, abdominal wall, spleen, and cecum. We drained the considerable purulent material and sent it to cultures, which later revealed *Escherichia coli* few, and placed two Jackson-Pratt drainage tubes in the subcutaneous layer to keep the abscess draining. Eventually, the operation went smoothly, and after a few weeks of antibiotics treatment, the patient was discharged with a stable condition. However, she was admitted again 2 months later due to a recurrence of sepsis and then expired in August.

DISCUSSION

Cytoreductive surgery is the standard approach for PSPC patients with the intention to achieve complete removal of any macroscopic lesions, followed by adjuvant chemotherapy with paclitaxel and carboplatin as standard.[4,5] The usual complications of PSPC discussed in the articles were postoperative complications, which included surgical site infections, symptomatic lymphocyst, anastomotic leakage, postoperative peritonitis, postoperative bleeding, bowel obstruction, and pneumothorax.[5,6] However, complications of subcutaneous emphysema and abscess formation over the chest wall and abdominal wall were not reported within 5 years after the operation. Concern about the rare presentation of anterior abdominal wall abscess formed as a result of the direct invasion and perforation of the colon cancer,[7,8] we considered the patient who got metastatic cecal might have the same situation. However, exploratory laparotomy excluded this possibility because the abdominal wall around the cecum showed no direct perforation into the peritoneal cavity or a local fistula forming an abscess. Eventually, carcinomatosis, which invaded and perforated the abdominal wall with tumor necrosis or abscess formation, was the final diagnosis.

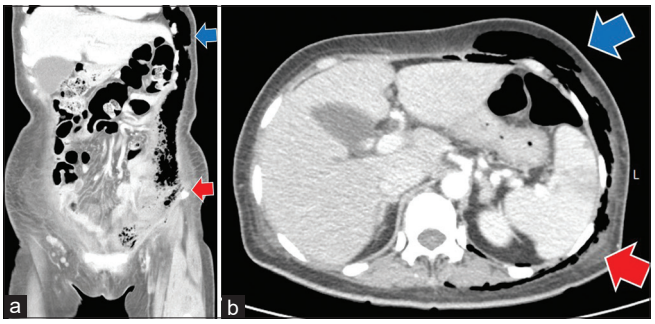

Figure 2: (a and b) Computed tomography of the chest and abdomen showed subcutaneous emphysema (blue arrow) and abscess formation (red arrow) in the left chest wall extending to the left abdominal wall

CONCLUSION

Anterior abdominal wall abscesses or subcutaneous emphysema have not been reported in previous PSPC cases. However, recognition of the source of the abscess may be difficult; if the abscess is not drained, it can lead to complications such as sepsis, which can endanger life. Prompt diagnosis and elimination of the source of sepsis may save lives.

Ethical approval

The study has been approved by the ethics committee of Tri-Service General Hospital, Taipei, Taiwan (IRB approval no. B202215193).

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent form. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

Data availability statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Tsuda B, Kajiwara H, Sakota N, Amatsu S, Tanaka A, Ikeda M. Difficult diagnosis of peritoneal serous papillary carcinoma in a 63-year-old woman: A case

report. Tokai J Exp Clin Med 2019;44:49-53.
2. Kim JW, Lee HS, Shin KS, Gam YH, Baik KD. Primary peritoneal serous papillary carcinoma presenting as a large mesenteric mass mistaken for ovarian cancer: A case of primary peritoneal carcinoma. Obstet Gynecol Sci 2015;58:246-50.
3. Kim HJ, Kim JK, Cho KS. CT features of serous surface papillary carcinoma of the ovary. AJR Am J Roentgenol 2004;183:1721-4.
4. Suh-Burgmann E, Powell CB. Cytoreductive surgery for gynecologic malignancies – New standards of care. Surg Oncol Clin N Am 2007;16:667-82, x-xi.
5. Blontzos N, Vafias E, Vorgias G, Kalinoglou N, Iavazzo C. Primary peritoneal serous papillary carcinoma: A case series. Arch Gynecol Obstet 2019;300:1023-8.
6. Dubernard G, Morice P, Rey A, Camatte S, Fourchotte V, Thoury A, *et al.* Prognosis of stage III or IV primary peritoneal serous papillary carcinoma. Eur J Surg Oncol 2004;30:976-81.
7. Basukala S, Thapa N, Rayamajhi BB, Basukala B, Mandal P, Karki B. A rare presentation of perforated carcinoma of colon as an anterior abdominal wall abscess-a case report and review of literature. J Surg Case Rep 2021;2021:rjab344.
8. Keerthana P, Poojitha Y, Badareesh L, Kshama H, Ramesh S. Anterior abdominal wall abscess: An unusual presentation of carcinoma of the colon. Arch Surg Clin Res 2019;3:070-1.