

Case Blog

## Perforated Colon Cancer Complicated with Necrotizing Fasciitis

Chen-Kuo Chu<sup>1</sup>, Feng-Fan Chiang<sup>2</sup> and Sung-Yuan Hu<sup>1,3,4,5\*</sup>

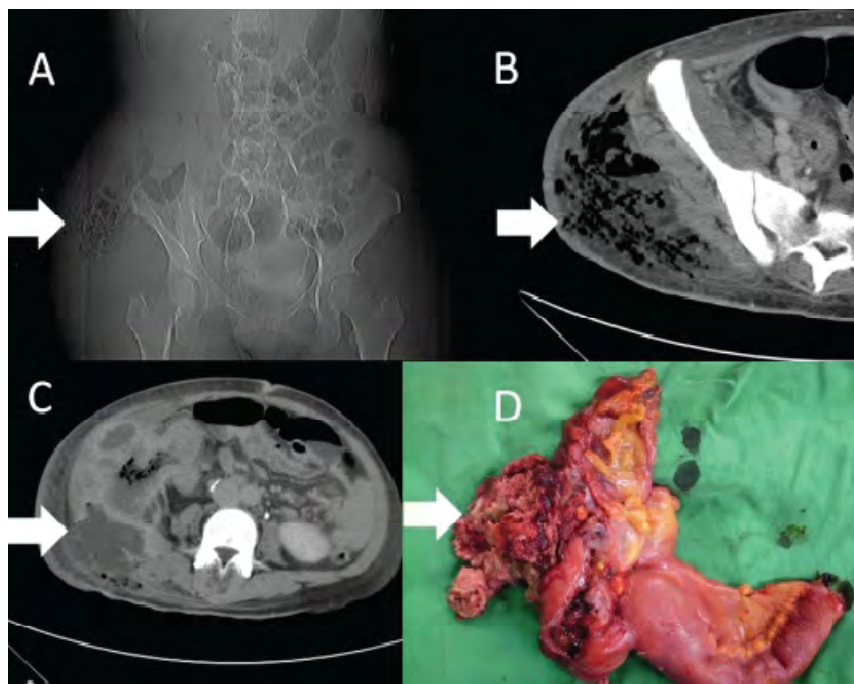
<sup>1</sup>Department of Emergency Medicine, Taichung Veterans General Hospital, Taichung, Taiwan

<sup>2</sup>Division of Colorectal Surgery, Taichung Veterans General Hospital, Taichung, Taiwan

<sup>3</sup>School of Medicine, Taichung Veterans General Hospital, Taichung, Taiwan

<sup>4</sup>Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan

<sup>5</sup>Department of Nursing, College of Health, National Taichung University of Science and Technology, Taichung, Taiwan



**Figure 1:** Scanogram of abdominal Computed tomography (CT) demonstrated subcutaneous gas over right buttock (arrow in A), ascending colon cancer with local invasion and perforation complicating formation of gaseous abscess and subcutaneous gaseous infiltration within the right flank and buttock (arrows in B and C) consistent with necrotizing fasciitis. Resected advanced cancer of cecum with perforation (arrow in D).

**Keywords:** Abscess; Colon cancer; Necrotizing fasciitis; Perforation

### Case Presentation

A 38-year-old Taiwanese woman had a 7 month history of abdominal pain over right lower quadrant and microcytic anemia. Upper gastrointestinal (GI) scope revealed gastric ulcer. Lower GI scope was suggested, but she hesitated to it and lost follow-up. This time, she visited our institution due to dyspnea for 2 days with episodic fever up to 39.4°C. Pale conjunctiva, hypoactive bowel sound, a protruding lesion with tenderness and subcutaneous crepitus over right flank and buttock were noticed on physical examination. Significant laboratory findings were white blood cell counts of  $19.5 \times 10^9/l$  with segmented neutrophils of 88% and band forms of 3%, hemoglobin 3.5 g/dl, C-reactive protein 21.2 mg/l, albumin 2.3 g/l, and calcium 1.85 mmol/l. Contrast-enhanced computed tomographic scan of the abdomen demonstrated ascending colon cancer with abscess formation and subcutaneous gaseous infiltration (Figures 1A-1C). Right hemicolectomy (Figure 1D), ileostomy and debridement with rotation flap were conducted. This patient was admitted to surgical intensive care unit for postoperative critical care. Culture

\*Corresponding author: Sung-Yuan Hu, Department of Emergency Medicine, Taichung Veterans General Hospital, Taichung, Taiwan, Tel: +886 4 2359 2525; Fax: +886 4 2359 4065; E-mail: [song9168@pie.com.tw](mailto:song9168@pie.com.tw)

Citation: Chu CK, Chiang FF, Hu SY (2016) Perforated Colon Cancer Complicated with Necrotizing Fasciitis. *Int J Clin Med Imaging* 3: 522. doi:[10.4172/2376-0249.1000522](https://doi.org/10.4172/2376-0249.1000522)

Copyright: © 2016 Chu CK. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

of abscess grew *Escherichia coli* and *Streptococci viridans*. Surgical pathological findings showed advanced adenocarcinoma of cecum, moderately differentiated, with invasion to mesocolic soft tissue, ileocecal valve and metastasized to mesocolic lymph nodes. She was discharged on the 25<sup>th</sup> postoperative day under uneventful condition.

## Discussion

Necrotizing fasciitis (NF) is a fulminant and life-threatening gangrenous soft-tissue infection with mortality rate of 20-40% [1-4]. NF is usually caused by trauma to the skin or surgical wounds and less common due to underlying intestinal diseases such as perforated colonic diverticulitis or cancer [2-4]. 3.3% of patients with colon cancer had localized perforation and 0.3-0.4% of these patients had abscess formation [3,4]. Fewer cases of retroperitoneal abscess and NF caused by perforated colonic cancer have been reported and potentially fatal in immunocompromised patients with mortality rate of 50% [3]. It most commonly occurs in the abdominal wall, extremities and perineum. Clinical features of NF include fever, chills, tenderness and crepitus on the involved region with skin discoloration [1-4]. Early diagnosis by US or CT and treatment with broad-spectrum antibiotics and surgical debridement can reduce the mortality rate associated with abscess and NF [1-5]. We highlighted that colon cancer could be a cause of unexpected retroperitoneal abscess followed by NF.

## Contributors

Chu and Hu conducted primary survey, resuscitation and emergency care at emergency department. Chiang performed emergency vascular repair and postoperative care. Chiang and Hu participated in the design of the case report and performed the search in the literature. Chu and Hu participated in the design and coordination of the report. All authors read and approved the final manuscript.

## References

1. Sarani B, Strong M, Pascual J, Schwab CW (2009) Necrotizing fasciitis: current concepts and review of the literature. *J Am Coll Surg* 208: 279-288.
2. Chen JH, Chang PY, Ho CL, Chen YC, Kao WY (2010) Retroperitoneal metastatic adenocarcinoma complicated with necrotizing fasciitis of the thigh in a patient with advanced rectal colon cancer. *Case Rep Oncol* 3: 304-309.
3. Khalil H, Tsilividis B, Schwarz L, Scotté M (2010) Necrotizing fasciitis of the thigh should raise suspicion of a rectal cancer. *J Visc Surg* 147: e187-189.
4. Tsai HL, Hsieh JS, Yu FJ, Wu DC, Chen FM, et al. (2007) Perforated colonic cancer presenting as intra-abdominal abscess. *Int J Colorectal Dis* 22: 15-19.
5. Takakura Y, Ikeda S, Yoshimitsu M, Hinoi T, Sumitani D, et al. (2009) Retroperitoneal abscess complicated with necrotizing fasciitis of the thigh in a patient with sigmoid colon cancer. *World J Surg Oncol* 7:74.