Perirenocolonic Fistula Caused by Perirenal Abscess Secondary to Perirenal Hematoma：A Case Report

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Abstract

Perirenal hematoma complicated with perirenal abscess is not common. Furthermore, a perirenocolonic fistula is a rare sequela of perirenal abscesses. We report a 73-year-old woman presented with one-month indolently left flank soreness and then diagnosed as a life-threatening perirenocolonic fistula. Perirenal material aspirated under ultrasound guiding reveals purulent. The culture grew Klebsiella pneumoniae, Pseudomonas aeruginosa, Enterococcus, Bacteroides fragilis, Peptostreptococcus, and Candida albicans. A fistula between perirenal space and gastrointestinal tract was thus suspected. Computed tomography of the abdomen and lower gastrointestinal study with barium enema were arranged and showed fistulous tract between the descending colon near the splenic flexure and the left perirenal space. After treatment with debridement, antibiotics, colonostomy, and adequate drainage, the patient had being gradually recovery. The symptom and laboratory data in a perirenal abscess are nonspecific usually so that a perirenal hematoma should be closely monitored. When the culture of a perirenal abscess revealed mixed microorganisms, fistulous formation should be considered. Further survey by radiological study including fistulography is highly suggested. Combination treatment of adequate drainage, antibiotics, and colonostomy is a good choice for perirenal abscess complicated with perirenocolonic fistula. (J Intern Med Taiwan 2008; 19: 441-445)

Key Words：Perirenocolonic fistula, Perirenal abscess, Perirenal hematoma

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Introduction

Perirenal abscesses have been associated with significant morbidity and mortality. Despite aggressive surgical drainage, Salvatierra et al. reported a mortality rate of 56%, Adachi and Carter noted a mortality of 39%, and Meng et al. reported a mortality rate of 12% from perirenal abscesses even after open surgical incision and drainage[1]. A perirenocolonic fistula is a rare sequela of perirenal abscesses. We report a patient with perirenocolonic fistula secondary to perirenal abscess derived from perirenal hematoma was treated successfully with antibiotics, colonostomy, and adequate drainage.

Case Report

A 73-year-old woman presented with one-month indolently left-flank soreness and aggravated in recent days, combined with intermittent chills and poor appetite. Falling down to the ground accidentally without obvious collision injury over her waist was also noted before his flank soreness. She was well-healthy being before and denied medical history of diabetes mellitus, hypertension, bleeding diathesis, stone disease, and trauma. Laboratory investigations were notable for leukocytosis of 18700/uL, hemoglobin of 10.1 mg/dl, blood urea nitrogen of 17.3 mg/dL, blood creatinine of 1.3 mg/dL, hemoglobin A1c of 6.1%. Urinalysis revealed pyuria (10-15 white blood cells per high power field) and bacteriuria (+). Renal sonography showed a perirenal hematoma in the left kidney. Computed tomography of the abdomen also showed a perirenal hematoma in the left kidney (Fig. 1). Conservative treatment with antibiotics of cephalexin, body temperature monitoring, and outpatient department follow-up was advised. One month later, due to the symptom of persistently left-flank soreness and chronic ill looking, she was admitted.

During admission, perirenal material aspirated under ultrasound guiding reveals purulent. Computed tomography of the abdomen was arranged again and showed left perirenal abscess, subdiaphragmatic abscess, and soft tissue pneumatosis with direct exten-

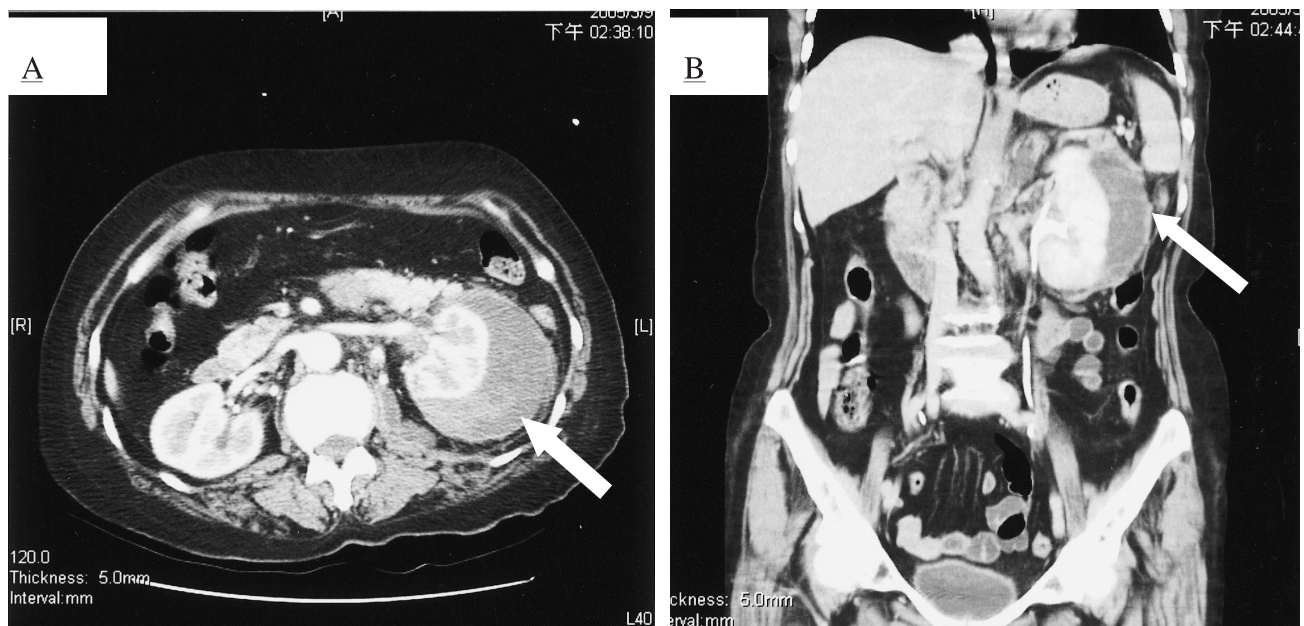

Fig.1. Abdominal contrast-enhanced computed tomography image studies in a 73-year-old woman with one-month indolently left-flank soreness, cross section (1a) and coronal section (1b) show giant left perirenal hematoma (arrow), mostly acute staged in nature, and no hydronephrosis.

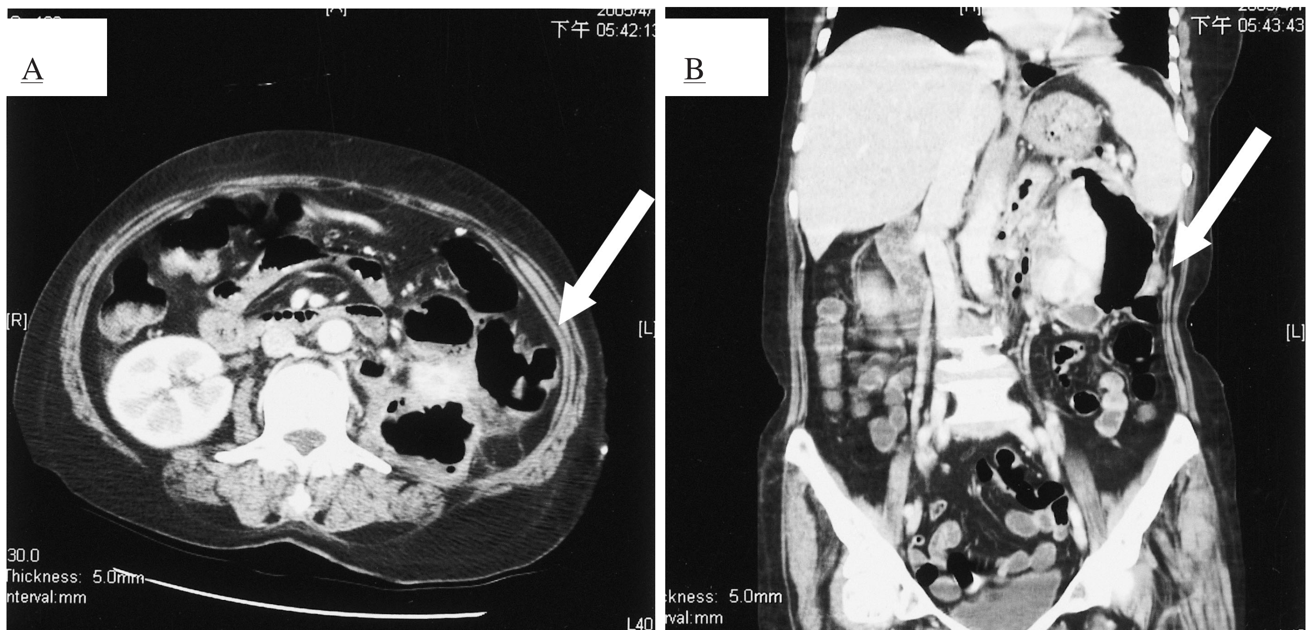

Fig.2.Abdominal contrast-enhanced computed tomography image studies in a 73-year-old woman with one-month indolently left-flank soreness, cross section (2a) and coronal section (2b) show left perirenal abscess, left subdiaphragmatic abscess, a fistula between perirenal space and gastrointestinal tract (arrow), and soft tissue pneumatosis with direct extention to the major vascular pedicle.

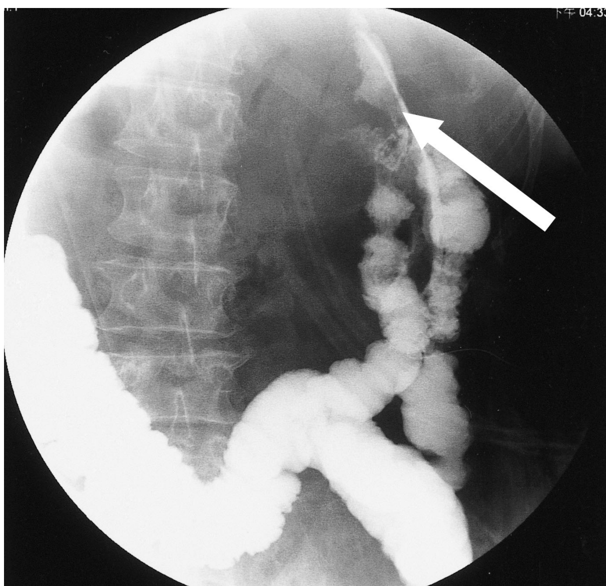

Fig.3.Lower gastrointestinal image study with barium enema in a 73-year-old woman with one-month indolently left-flank soreness and the perirenal abscess culture grew Klebsiella pneumoniae, Pseudomonas aeruginosa, Enterococcus, Bacteroides fragilis, Peptostreptococcus, and Candida albicans, shows a fistulous tract from the descending colon near the splenic flexure to the left perirenal space (arrow).

tion to the major vascular pedicle (Fig. 2). The culture grew Klebsiella pneumoniae, Pseudomonas aeruginosa, Enterococcus, Bacteroides fragilis, Peptostreptococcus, and Candida albicans. Therefore, triple antibioitics were employed and a fistula between perirenal space and gastrointestinal tract was suspected. Surgical intervention for debridement and drainage was performed. Nine days later, stool-like material and odor were found from the drain. Lower gastrointestinal study with barium enema was arranged and showed a fistulous tract between the descending colon near the splenic flexure and the left perirenal space (Fig. 3). Colonostomy was performed. At surgery, complete left kidney contour and no contamination into intraperitoneal space were confirmed. Now, after treatment with debridement, antibiotics, colonostomy, and adequate drainage, the patient had being gradually recovery.

Discussion

This patient has indolently traumatic history and no risk factors for spontaneous hematoma such as tu-

mor, vascular abnormalities, and disturbance to the hemostasis were identified, therefore, we incline to the diagnosis of traumatic hematoma. According to the study of Wilson and Ziegler, of 65 stable renal injuries treated conservatively, there were nine (14%) complications including three reoperation for missed injuries and three perirenal abscesses [2]. Therefore, perirenal hematoma complicated with perirenal abscess is not common. In our patient, the cause of perirenal hematoma complicated with perirenal abscess may originate from urinary tract infection.

A perirenal abscess can pose a great diagnostic challenge because the findings of a patient's history and physical examination are nonspecific. A delay in diagnosis leads to higher morbidity and mortality, therefore, early diagnosis is important. Shukla et al. report the mortality rate for perirenal abscesses can be as high as 8-22% and significant morbidity occurs in 35% of patients. Nonspecific pain is the most common complaint in the patient with perirenal abscess[3].

In review of a few reports in treatment of perirenal abscess, nonoperative treatment with antibiotics and adequate drainage is a good choice for perirenal abscess but complication with fistulous formation should keep in mind [4-9]. Perirenocolonic fistula, while a very rare complication of perirenal abscess, should be considered when a patient presents with perirenal suppurative process and mixed microorganisms from perirenal abscess. Further survey by radiological study for detecting a fistula between perirenal spaces with gastrointestinal tract should be highly suggestive. Computed tomography and low gastrointestinal series with barium enema are the diagnostic procedures of choice [3,10]. Combination treatment of antibiotics, adequate debridement, and colonostomy is a good choice for the rare complication of perirenal abscesses.

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續發於腎旁血腫之腎旁膿瘍 所導致的腎旁結腸瘻管—病例報告

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摘 要

腎旁血腫合併腎旁膿瘍的情形不常見，而腎旁結腸瘻管是腎旁膿瘍更少見的併發症。我們報告一位73歲的婦女，呈現的症狀爲輕微左側腰部酸痛一個月，而後被診斷爲威脅生命的腎旁結腸瘻管。超音波導引下所抽取的腎旁物質呈現膿狀外觀，將此抽吸物做培養，結果呈現同時有Klebsiella pneumoniae、Pseudomonas aeruginosa、Enterococcus、Bacteroides fragilis、Peptostreptococcus以及Candida albicans混合菌叢生長，因此懷疑在腎旁空間與胃腸道之間有瘻管形成。腹部電腦斷層以及下胃腸道鋇劑攝影被安排，顯示靠近脾曲部的降結腸與和左側腎旁空間之間有瘻管形成。經過清創、抗生素、結腸吻合術以及足夠的引流之後，病患逐漸痊癒。因爲腎旁膿瘍的症狀和實驗室檢查經常不具特異性，因此腎旁血腫應該被嚴密監控。當腎旁膿瘍的培養結果顯示混合菌叢時，應該要考慮有瘻管形成。進一步的放射線檢查，包括瘻管攝影，被高度建議使用。合併適度的引流、抗生素以及結腸吻合術共同治療，對於腎旁膿瘍併發腎旁結腸瘻管的病人而言，是一種好的治療選擇。