

中文題目：自發性腎皮瘻管:一個罕見的案例

英文題目：Spontaneous nephrocutaneous fistula: A rare case report.

作者：吳明駿¹，藍顯章²

服務單位：¹東勢農民醫院肝膽腸胃科，²童綜合醫院放射科

Introduction: Renal fistula to adjacent organs is a common phenomenon, however, nephrocutaneous fistula (NCF) is extremely rare and very few cases are described in the literature. Furthermore, its occurrence has been related to renal surgery, infection, or nephrolithiasis. We demonstrate a case of spontaneous NCF in a 90-year-old man presented with left flank necrotizing fasciitis.

Case presentation:

A 90-year-old bed-ridden man with a history of chronic obstructive lung disease (COPD), type 2 diabetes mellitus (T2DM), and dementia presented with productive cough, shortness of breath, and cloudy urine for ten days. He was admitted under the impression of pneumonia and urinary tract infection (UTI). Initial vital signs show a blood pressure of 140/73 mmHg, body temperature of 36.7 °C, a pulse rate of 108 beats per minute, and a respiratory rate of 23 per minute. Other laboratory results worth noting are severe leukocytosis with left shift and elevated CRP. Urine culture was collected and revealed *Citrobacter koseri*. During hospitalization, he received empiric antibiotic treatment; however, left flank cutaneous abscess 10cm in size with pus formation, necrosis, and surrounding erythematous skin change was found. Diagnosed as necrotizing fasciitis, fasciotomy was performed with pus culture yielding *Citrobacter koseri*, which was identical to that of the urine culture, raising suspicion of fistula development between the skin and urinary system.

As a result, the patient underwent contrast enhanced computed tomography and was found to have irregular soft tissue swelling with heterogenous contrast enhancement extending through the cutaneous open wound and Gerota's fascia to the left para-renal space and left kidney. Nephrocutaneous fistula was recognized, and because of advanced age, percutaneous drainage was carried out over the aforementioned lesion. Eventually, he recovered well after the above procedure, and no further post-operative complication was reported.

Discussion: Fistula between the skin and kidney typically involves patients with a history of previous renal surgery, and the cases reported to date include association with xanthogranulomatous pyelonephritis, tuberculosis bacilli, and abscess. Therapy should be based on the patient's renal function and ability to tolerate surgery, which is comprised of total or partial nephrectomy. We decided a more conservative approach for the patient in this case owing to his old age, multiple

comorbidities, and family's desire.

Conclusion: NCF is a rare clinical entity with a high rate of mortality. High clinical vigilance is required to make an accurate diagnosis of NCF. In addition, these patients should be treated on an individual basis since standardized management has yet to be established.



Figure: Contrast enhanced computed tomography reveals heterogeneous contrast enhancement connecting the wound opening and para-renal space (yellow arrow), compatible with nephrocutaneous fistula (NCF).