

## SPONTANEOUS NEPHROCUTANEOUS FISTULA

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### ABSTRACT

Spontaneous renal fistula to the skin is rare. The majority of cases develop in patients with antecedents of previous renal surgery, renal trauma, renal tumors, and chronic urinary tract infection with abscess formation.

We report the case of a 62-year old woman, who complained of urine leakage through the skin in the lumbar region for 2 years. She underwent a fistulography that revealed drainage of contrast agent to the collecting system and images suggesting renal lithiasis on this side. The patient underwent simple nephrectomy on this side and evolved without interurrences in the post-operative period.

Currently, the occurrence of spontaneous renal and perirenal abscesses is extremely rare, except in patients with diabetes, neoplasias and immunodepression in general.

**Key words:** kidney; lithiasis; fistula; lumbar region; nephrectomy

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### INTRODUCTION

Spontaneous renal fistula to adjacent organs is not an uncommon phenomenon, however the spontaneous communication between kidney and skin is rare and few cases are described in the literature (1-3). The occurrence of spontaneous fistulas in patients without surgical history is rare (3). All cases reported in the literature are associated with chronic urinary tract infection and nephrolithiasis.

The authors report one more case of this rare complication of lithiasis-induced chronic pyelonephritis.

### CASE REPORT

A 62-year old woman was admitted to the urology service reporting urine leakage from the skin in the lumbar region for 2 years. She referred local inflammatory process with drainage of purulent se-

cretion at the onset of the clinical picture. There was no report of previous pyelonephritis. The physical examination evidenced a fistulous orifice in skin on left lumbar region (Figure-1). Urine culture was negative. The patient denied diabetes or past history of local trauma.



**Figure 1** – Fistulous orifice in skin on left lumbar region (arrow).



**Figure 2** – Fistulography performed from the fistulous orifice in the skin on lumbar region, demonstrates contrast agent in the collecting system of the left kidney.

A fistulography was performed, revealing drainage of the contrast agent to the collecting system, and images suggesting renal lithiasis on this side (Figure-2). Renal scintigraphy with DMSA revealed relative renal function of only 5% on the left side. The contralateral kidney was normal.

Patient underwent left lumbotomy, where an atrophic kidney was found, with adhesions to adjacent structures. Then a simple left nephrectomy was performed.

The pathological examination of the surgical specimen revealed chronic pyelonephritis associated with multiple renal calcifications. Testing for tuberculosis in the renal tissue was negative. Patient evolved without intercurrents and was discharged from the hospital on the seventh postoperative day.

## COMMENTS

Renal fistulas usually are complications of surgical procedures on the kidney, renal trauma, tumors, and chronic urinary tract infections with formation of perirenal abscess (1). Such abscesses can derive from organs that are adjacent to the kidney, as well as from the kidney itself, by extension of urinary infection to the adjacent tissues, either by contiguity or by lymphatic route. In other occasions, abscesses can originate from an urinoma or urinary pseudocyst, that arise as result of external or surgical trauma on the kidney, promoting loss of continuity between it and the surrounding tissues (2).

Currently, the occurrence of renal and perirenal abscesses is rare, except patients with diabetes, with neoplasias or immunodepression in general. The outcome of these abscesses, when left untreated, is unforeseeable (2).

Fistulas can develop between the kidney and the pleural cavity, lungs and bronchia, bowel, and skin. However, the latter are rare, and whenever they occur, they typically involve patients with a past history of renal surgery (1).

The majority of fistulas presents spontaneous drainage through the lumbar region following those points with lowest resistance, such as the lumbar triangle (Petit) and the lumbar quadrilateral (Grynfeld), establishing a fistulous pathway that communicates the perirenal tissues and collecting system with the external environment (2). The association with infectious renal stones is frequent and has occurred in all cases described in the literature (1-3). The patient in this case had a staghorn stone in the involved kidney.

Therapeutic approaches must be based on the renal function and on the patient's ability to tolerate the surgical procedure, and can include total nephrectomy, partial nephrectomy or isolated antibiotic therapy (3). In the present case, the patient evolved without postoperative intercurrents and was free of symptoms.

## REFERENCES

1. Bryniak SR.: Primary spontaneous renocutaneous fistula. *Urology*. 1983; 21: 516-7.

2. Sarmiento RC, Blasco CF, Herrera FF, Chica RA, Ostale GJ: Spontaneous nephrocutaneous fistula. Report of a case and review of the literature. Arch Esp Urol. 1990; 43: 411-3.
3. Singer AJ: Spontaneous nephrocutaneous fistula. Urology. 2002; 60: 1109-10.

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