

# Entero-Uretero-Cutaneous : A Case Report with Review of Literature.

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## Abstract

Uretero - cutaneous - fistula could be urological, gynecological or due to malignancy and trauma. However, uretero - cutaneous - fistula due to persistent stone in ureter. Enter - ureteric fistula involve the duodenum, jejunum, ileum and colon due to urinary calculi, iatrogenic trauma, diverticulitis, radiation therapy, transitional cell carcinoma and tuberculosis. Uretero - duodenal - fistulas are extremely rare, with only about a dozen cases reported in the literature in the past century to our knowledge. Uretero - cutaneous - fistula may occur as a result of chronic infection especially in the setting of calculus disease. We report a case of entero - uretero - cutaneous - fistula a **rarest case** may be first of its kind in the medical literature.

## Introduction

Uretero - cutaneous - fistula could be urological, gynecological or due to malignancy and trauma. However, uretero -cutaneous - fistula due to persistent stone in ureter. Enter - ureteric fistula involve the duodenum, jejunum, ileum and colon due to urinary calculi, iatrogenic trauma, diverticulitis, radiation therapy, transitional cell carcinoma and tuberculosis. Uretero - duodenal - fistulas are extremely rare, with only about a dozen cases reported in the literature in the past century to our knowledge. Uretero - cutaneous - fistula may occur as a result of chronic infection especially in the setting of calculus disease. We report a case of entero - uretero - cutaneous - fistula a **rarest case** may be first of its kind in the medical literature.

## Case Report

58 year old male well built pt referred to our dept for sonogram with the history of serosanguinous discharge from three months. There was no history contributing to etiology. It was a fistula communicating with ureter and duodenum. There was a calculus in the ureter at the site and drainage of contrast is seen in the ureter. Screening CT showed scarred kidney, ureteral thickening, calculus, retroperitoneal fat stranding with psoas abscess.

## Discussion

Uretero - cutaneous fistula is an abnormal communication

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between the skin and urinary tract. Uretero-cutaneous fistula could be spontaneous or secondary to gynecological, urological surgery, malignant disease, trauma or iatrogenic [1]. Rare causes such as aortic surgery with infected aortic prosthesis were also recorded [2]. A ureterocutaneous fistula after nephrectomy is very rare complication and so far only a few cases have been reported xanthogranulomatous pyelonephritis is also known to cause Uretero-cutaneous fistula. The mechanism can be explained as either pressure necrosis around the ureteral wall due to stone impaction or a tear of the ureter during passage of the stone [2,4]. Ureteral tumor, ureteral infection, colonic and duodenal diseases were also reported to be responsible for the problem. Ureteral rupture complicated with retroperitoneal abscess and sepsis as in our case.

Excretory urography, fistulogram (Fig. 1), retrograde pyelography, and delayed contrast-enhanced CT (fig.CT) are reasonable options for diagnosis. Barium studies of the intestinal tract may show abnormalities such as small bowel mucosal disease or diverticula but often will not reveal the fistula.

Ureteroduodenal fistulas are rare and only 11 cases have been reported in the literature since 1918.

The first case was reported in 1918 by David, E.G [1]. They have been reported to occur secondary to chronic renal infection, ureteric calculi, duodenal ulcer diseases, roundworm infestation of urinary tract, iatrogenic injury, trauma or ingestion of foreign body [4,5].

## Conclusion

Our case of entero-uretero-cutaneous fistula is due to abnormal shape of large calculi, perurethral infection,

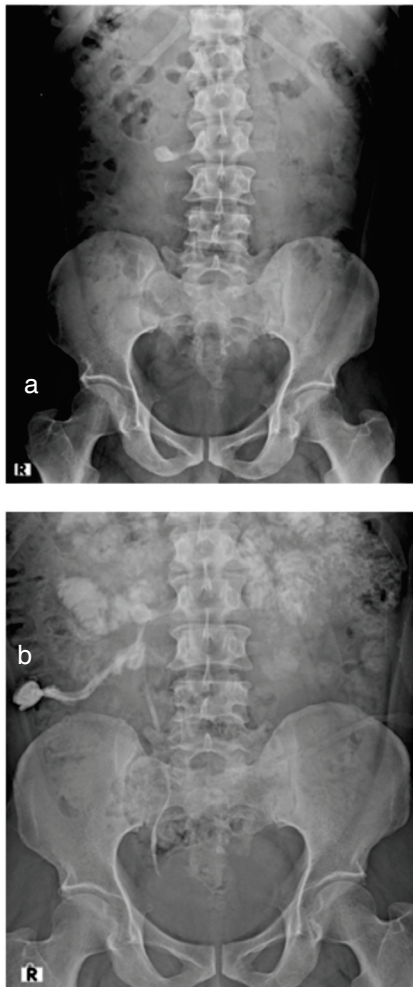


Fig. 1 (a&b): Preliminary KUB radiogram showing radioopaque calculus in right upper ureteric region and fistulogram showing cutaneous tract to the ureter and communication to duodenum and drainage of contrast through the right ureter.

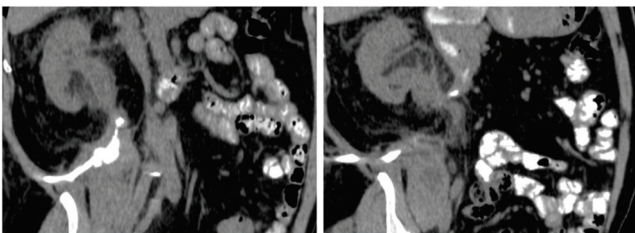


Fig.2 (a&b): NECT showing scarred kidney, dilated pelvis with surrounding fat stranding, upper ureteric calculus, fistulous tract to the ureter and duodenum with right psoas abscess

pressure necrosis causing ureteric perforation, with retroperitoneal infection, psoas abscess - tracking to duodenum causing fistula. We are reporting a case of an entero-ureteric - cutaneous fistula a rarest case.

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**Declaration of patient consent** Taken

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