*Case Report*

# AN ELEVEN YEAR OLD FORGOTTEN URETERAL STENT: A SERIOUS DILEMMA IN THE MANAGEMENT

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## ABSTRACT

Ureteral stents play a major role in the endourological management of a vide spectrum of urological disorders and have been utilised tremendously almost in all urology clinics. Although, duration of various stents may vary they should usually be removed in six months. Otherwise, the management of forgotten stents may constitute a major dilemma. Here, we report three cases of forgotten stents. One of them had duration of eleven years-the longest time in the literature and required open surgery with multiple incisions.

**Key Words:** Ureteral stent, Ureteral calculi, Ureteroscopy, Case report.

## INTRODUCTION

Ureteral stents are extensively utilised with various indications in this endourology era. They constitute a major part of the management of nephroureterolithiasis, ureter obstruction, renal transplantation, urinary trauma, genitourinary oncology, and reconstructive surgery. Since the first utilisation of ureteral stent in 1978 many developments have been achieved in stent manufacture (1). The widespread usage of stents resulted in several significant complications. One of the major problems is the indwelling longer than initially planned. The maximum length of duration of ureteral stents is usually up to six months. The cases of forgotten stents constitute a dilemma in the management. They may reappear in a fragmented, calcified or a friable state. Management of such cases should first include endourological procedures (2). We present three cases of forgotten ureteral stents and one of them was a disaster in terms of consequences and the duration was eleven years the longest time up to date.

## CASE REPORT

Case 1: A 44-year-old- man presented with a 2-week history of dysuria and right flank pain. He had undergone ureterolithotomy 9 years ago. Plain abdominal film revealed bilateral staghorn stones, a huge bladder stone and fragmented stent in urinary system (Fig. 1). The patient had chronic renal failure. He was included in a renal transplant program with bilateral nephrectomy and cystolithotomy.

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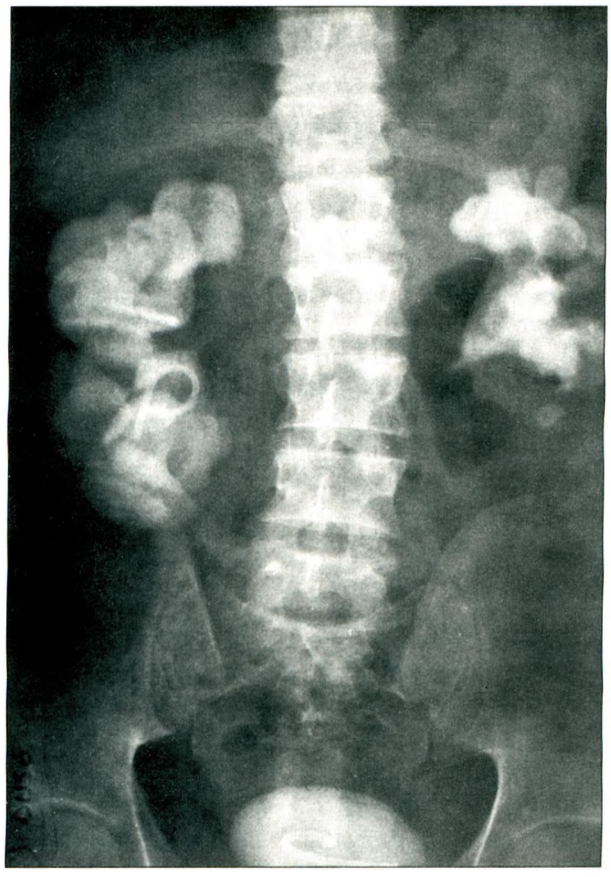

**Fig. 1:** Fragmented forgotten ureteral stent for 9 years with bilateral staghorn stones and a huge bladder stone.

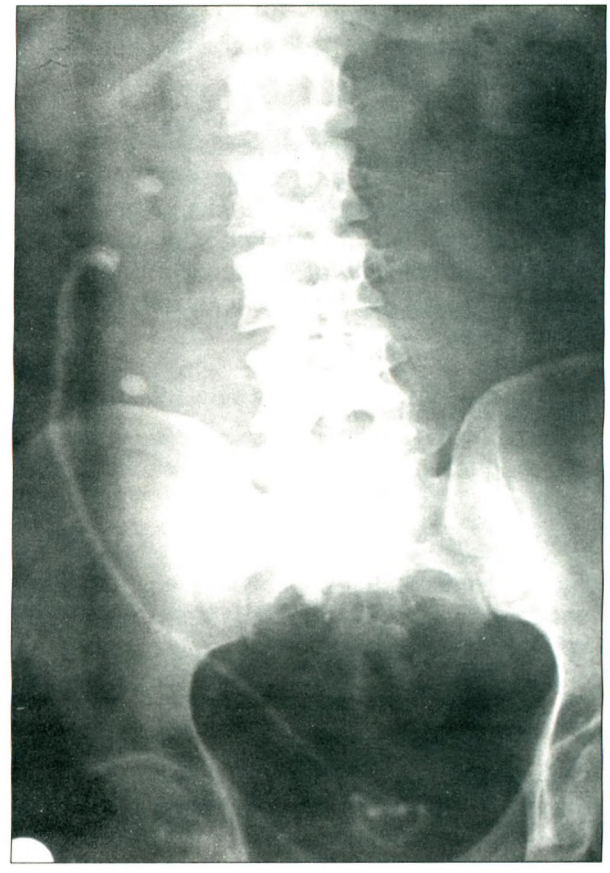

**Fig. 2:** Calcified fragmented forgotten ureteral stent for 11 years.

Case 2: A 40-year-old-man attended with right flank pain. He received ESWL treatment for kidney stone including a ureteral stent replacement 11 years ago. Plain film demonstrated right renal stones and a calcified stent throughout the ureter (Fig. 2). Scintigraphy revealed a relatively preserved function of the right kidney. Endoscopic attempts failed to remove the stent. Therefore, open surgery was performed and parts of the stent could be taken out through 2 separate skin incisions with several accesses to urinary system as pelvis, bladder, and 2 distinct ureteral incisions. A new stent was replaced. He recovered from surgery well and the stent was removed after 1 month.

Case 3: A 66- year-old male patient was admitted because of spontaneous passage of a piece of a stent. He had ureteroscopy for left ureteral stone 3 years ago with a ureteral stent insertion. Plain film revealed fragments of the stent. All parts of the stent were easily removed by ureteroscopy.

## DISCUSSION

Forgotten stents are associated with serious consequences. Encrustation, calcification, and stone formation can be encountered (3). Particularly, stone formation due to the forgotten stents of 6 to 24 months was reported as a serious complication (4). Urinary obstruction and renal damage can develop. In addition, removal of the stent can cause a major dilemma (2). Endourological attempts are advised as the initial step for the removal of the stents. However, management can sometimes be a substantial problem as in our second case who required open surgery with multiple incisions. Therefore, a strict information should be given about the surgical procedure and consequences of the forgotten stents. This is significantly important for busy referral institutions as all of our cases underwent the previous surgeries at other such centers. A detailed written information may be given to illiterate people or patients coming from rural area or having low intellectual level.

Additionally, this would be important for the physician to prevent medical and legal problems of a forgotten stent.

In conclusion, all patients with stent replacement should receive a detailed information regarding the consequences of a forgotten stent which can be a serious problem in management as we observed in one of our cases who had the longest time of duration in the literature.

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