Herniation of the urinary bladder is observed in around 1%–4% of cases. Bladder herniation rarely presents with obstructive uropathy; however, bladder herniation carrying ureteroneocystostomy and leading to obstructive uropathy of the graft is even rare. Here, we present a case of a 36-year-old male with deranged renal function test who had undergone renal transplant 10 years back. Computed tomography scan revealed bladder herniation with ureteroneocystostomy and hydronephrosis. He was surgically explored by Gibson incision and ureterolysis, and hernioplasty was performed. Although the cause of herniation was ureteroneocystostomy, it was managed immediately without any need for percutaneous nephrostomy.

**Keywords:** Bladder hernia, transplant kidney, ureteroneocystostomy

**INTRODUCTION**

Herniation of the urinary bladder is not rare; however, around 1%–4% inguinal hernias may involve urinary bladder. Bladder herniation rarely presents with obstructive uropathy as it is mostly unilateral, and bladder herniation carrying ureteroneocystostomy leading to obstructive uropathy of the graft is even rarer. Here, we present such a unique case, wherein the graft was salvaged in time.

**CASE REPORT**

A 36-year-old male presented with loss of appetite and decreased urine output. He had undergone transplantation of the right kidney 10 years ago [Figure 1a]. Ultrasound examination showed hydroureternephrosis of the transplanted kidney. The blood urea was 96 mg/dL, and the serum creatinine was 3.5 mg/dL. Computed tomography scan of the lower abdomen revealed hydroureter till its insertion in the bladder with an inguinal hernia and bladder as its content [Figure 1b]. The urine culture was sterile, and the total leukocyte count was 8700 cells/µL. Cystoscopy and exploratory laparotomy were planned. On cystoscopy, neo-ureteric orifice was patent, but stenting could not be done. Right Gibson incision was given, and bladder was seen herniating into the right inguinal canal [Figure 1c]. The ureter was also being pulled out laterally, hence producing a kink that led to dilatation above this kink. It was an extraperitoneal sliding type of hernia of the bladder. Ureter and bladder were carefully dissected, and Double-J (DJ) stent was placed through a ureterotomy incision along with hernioplasty [Figure 1d]. The ureterotomy was closed [Figure 1e]. The kidney function was normalized in 48 h. The patient had presented with obstructive uropathy due to ureteric obstruction by a bladder hernia.
and improved immediately after hernioplasty and stenting. The stent was removed cystoscopically after 6 weeks.

DISCUSSION

Obstructive uropathy caused by bladder or ureteral herniation after renal transplant has been reported in the literature.[1] In most of the reported cases, the previous history of herniorrhaphy, which entangled the transplanted ureter, is presented. The most common type of a hernia found in these cases was an inguinal hernia. A bladder hernia leading to ureteric obstruction and uropathy is very rare.

Hernia repair with the use of mesh has greatly reduced the risk of recurrence.[2] In most of these cases, it was observed that the prognosis of the surgery was good and also the kidney graft function was retained, while in other cases, patients were usually managed first by putting a percutaneous nephrostomy (PCN) and stabilizing the kidney function and then going for the definitive procedure.[3‑9]

Ghielmini et al. reported a similar case as ours with a bladder hernia, but it had caused acute urinary obstruction.[9] They managed the case with PCN diversion first followed by open antegrade stenting. In our case, the obstruction was insidious in onset, and the patient was clinically stable with a serum creatinine of 3.5; hence, we planned to do a straightforward surgical correction. We avoided doing a PCN and achieved an excellent recovery of the graft immediately by surgical exploration. Early surgical exploration may also help in avoiding future stricture formation in the ureter.

CONCLUSION

Ureteroneocystostomy herniation leading to obstructive uropathy in a transplanted kidney is a very rare entity. If detected early, surgical correction of a hernia and DJ stenting results in excellent graft recovery.

Declaration of patient consent

The authors certify that they have obtained appropriate patient consent form. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initial will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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