

# Obstructive uropathy of transplant kidney secondary to recurrent inguinal hernia: a case report

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## Introduction

Obstructive uropathy after kidney transplantation can lead to acute kidney injury and rarely kidney allograft failure. Herniation of the transplant ureter through an inguinal hernia is a rare cause of obstructive uropathy, and there are minimal cases described in the literature. We present a case of a 75 year old man with renal transplant dysfunction secondary to ureteric obstruction within a recurrent inguinal hernia.

## Case report

We present a case of a 75 year old man who had a right sided deceased donor transplant in 2014 and a previous open mesh repair of a right inguinal hernia in 2010. He was found to have renal transplant dysfunction secondary to obstruction of the transplant ureter in 2023.

The cause of the obstruction was unclear on initial imaging and he was managed with a nephrostomy and ureteric stent. Over a 12 month period stent changes were challenging and so he was referred to our tertiary Transplant Surgery unit for further investigation and management.

We removed the stent and performed a non-contrast computed tomography scan 48 hours later (figure 1), revealing that the transplant ureter was kinked and obstructed within a recurrent right inguinal hernia.

## Case report

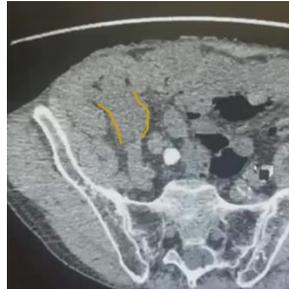


Figure 1. Non-contrast CT showing hydronephrosis of the transplant kidney

We managed this initially with a nephrostomy, and a stent was placed to aid identification of the ureter during subsequent hernia repair.

On reducing the hernia, a small defect in the transplant ureter was noted (figure 2)– this was repaired in two layers (figure 3). An open mesh repair of the inguinal hernia was performed using ProGrip™ mesh (figure 4), the nephrostomy was removed and the stent left in situ.

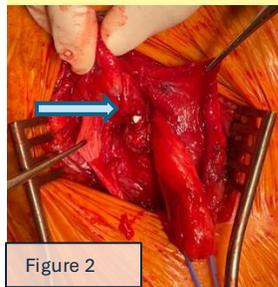


Figure 2



Figure 3



Figure 4

Post-operatively the renal function improved and he was discharged with a plan for stent removal in 4 weeks.

## Discussion

Inguinal herniation of a transplant ureter is a rare but recognised cause of renal transplant dysfunction. Simple hernia repair without reimplantation of the ureter can be a successful management option.