An unusual and late presentation of urinary leak post-kidney transplantation requiring ureteroureterostomy at the single tertiary center of Bangladesh: a case report

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Background: Ureteric complication post-transplantation are a significant source of morbidity, compromised graft function and can cause mortality. The distal part of the ureter is most affected.

Case report: The patient was a 25-year-old female with end-stage renal disease secondary to (glomerulonephritis). She was on haemodialysis for 8 months. Her twin brother was a suitable donor available; donor was human leukocyte antigen (HLA) identical match and crossmatch was negative. She was transplanted on the December 2018 with standard immunosuppression protocol including Methylprednisolone, Tacrolimus and Mycophenolate mofetil. Post-transplant her serum creatinine level was 66.1 $\mu\text{mol/L}$ to 51.5 $\mu\text{mol/L}$ for 2 months. Her serum creatinine escalated to 199.8 after 2 months and Doppler ultrasound of the transplanted kidney revealed mild hydronephrosis. She became anuric requiring dialysis. Her transplant biopsy was done which revealed acute tubular necrosis. After a session of plasma exchange and Haemodialysis her creatinine improved and she was dialysis free. She presented again after 5 months with distended abdomen full of frank puss on aspiration which grew candida. Finally, once she was hemodynamically stable with antifungal, and antivirals a computed tomography urogram revealed a urinary leak at the junction of the transplanted ureter and bladder anastomosis site with tissue ischaemia. She then underwent reconstructive surgery ureteroureterostomy between transplant and native ureter with the transplant ureter being connected to the native ureter. She had a stent inserted at the site which was removed at day 5 and creatinine increase from 70 $\mu\text{mol/L}$ to 150 $\mu\text{mol/L}$. She went into retention and developed another urinary leak. She was catheterized for 3 weeks. Her creatinine normalized to 66 and remained stable.

Conclusions: On-going urine leak may manifest itself as swelling, pain, high drain output, sepsis, ileus, and eventual graft loss. Early identification, localization and quantification of leak remain essential in management of these patients.

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