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Rare Encounter of a Post-Kidney Transplant Complex Urinoma in a Complex Patient

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Abstract

Urological complications post-kidney transplantation pose significant challenges in patient management, often necessitating a balance between invasive procedures and conservative care.(Post KT , Urological complications).

This case report explores the efficacy of minimal-invasive strategies in addressing such complications. Particularly urinoma formation, which is a relatively uncommon but serious concern.

Utilizing advanced imaging techniques like CT for precise localization of urine leaks has proven instrumental in guiding targeted interventions and improving patient outcomes. The (this) report delves into a retrospective analysis of early surgical complications following kidney transplantation and their long-term impact on graft function and patient survival. Additionally, it reviews the broader implications of postoperative care in kidney transplant recipients who undergo non-transplant-related elective surgeries. Following Through a through literature review this report underscores the importance of a multidisciplinary approach in optimizing post-transplant recovery and highlights the need for vigilant monitoring to mitigate the risks associated with urological complications.

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Introduction

Kidney transplantation stands as a cornerstone in the management of end-stage renal disease, offering a renewed quality of life and improved survival rates. However, the journey to successful transplantation is fraught with potential complications, particularly in the realm of urological issues. Urinoma (is) formation, an accumulation of urine in the perirenal space, represents a significant postoperative challenge that can lead to graft dysfunction and morbidity. In this case report, we delve into the clinical narrative of a 66-year-old female patient with a complex medical history including dyslipidemia, bronchial asthma, and chronic kidney disease who encountered urinoma post(following a) kidney transplant.

The literature underscores the critical nature of early detection and management of urological complications to mitigate their impact on graft survival.

Studies have highlighted various strategies ranging from conservative approaches to surgical interventions to address these complications [1-5]. Our case adds to the body of knowledge by detailing the diagnostic conundrum and therapeutic intricacies encountered in managing a persistent urinoma resistant to initial conservative measures.

Presentation

A 66-year-old female patient diagnosed patient with dyslipidemia, bronchial asthma, chronic kidney disease underwent live donor kidney transplant.

Transplant surgery was approach via a curved incision made on right iliac fossa. Then dissected through the retroperitoneal plane and inferior epigastric vessels identified and ligated. Right external iliac artery and vein identified and dissected. Proximal and distal control taken. Kidney taken from ice pack. Right external iliac vein clamped. Right external iliac vein and right donor kidney right renal vein side to end anastomosis done with 6.0 polypropylene. Right external iliac artery clamped and right external iliac artery to right donor kidney right renal artery side to end anastomosis done with 6.0 polyprpylene. Kidney perfused well. Urinary bladder filled with povidone iodine and incision made. Donor kidney ureter anastomose with bladder by vicryl. (patient underwent a standarad R/side live donar kidney transplant, with renal vessels anastomosed to external iliac vessels in end to side manner)

Routine post-transplant care was given and she was apparently well for 3 months. During routine clinic visits she was found to have rising creatinine levels and was admitted for further investigation.

An ultrasound scan done and found (revealed) to have a large collection in relation to lower pole of the transplanted kidney with moderate hydronephrosis with hydro ureter in grafted kidney. Ultrasound guided aspiration and fluid analysis showed fluid creatinine level as 1985.84 micromoles per liter which is suggestive of urinoma formation. Ultrasound guided aspiration done 2 times but significant reduction in collection was not achieved. Therefore a nephrostomy was inserted. Nephrostogram was performed and it showed a large thin wall cystic lesion between transplanted kidney and the bladder and it didn't fill with contrast. Normal drainage to the bladder noted. Later CT IVU also done and confirm no contrast accumulation within the collection and contrast accumulation in the bladder in delayed images.

She underwent boari flap reconstruction of ureter of grafted kidney and jj stenting. During surgery Grafted kidney was mobilized and urinoma was identified. As well ureteric stricture was identified (at neo vesico-ureteric junction) and excised. Jj stent was inserted and boari flap reconstruction of the ureter done.

Surgical management result in complete resolution of the urinoma.

Discussion

The management of urinoma following kidney transplantation is a critical aspect of postoperative care, with significant implications for graft survival and patient morbidity. In the case presented, despite initial conservative measures including ultrasound-guided aspiration, the persistence of urinoma necessitated more invasive intervention. The literature supports a tailored approach to such urological complications, advocating for minimal-invasive techniques when possible [6, 7]. However, as demonstrated in our case, (open)surgical intervention may become inevitable.

The decision to proceed with boari flap reconstruction

and JJ stenting was guided by the failure of conservative management and the anatomical considerations revealed by imaging studies. This aligns with current evidence suggesting that precise localization of urine leaks and understanding the underlying pathology are paramount in selecting the appropriate intervention [8]. Furthermore, studies have shown that early surgical complications can have a lasting impact on long-term clinical outcomes following kidney transplantation, underscoring the importance of timely and effective management.

Our case also highlights the importance of a multidisciplinary approach in managing complex post-transplant complications. The collaboration between radiologists, nephrologists, urologists and transplant surgeons was crucial in achieving a favorable outcome for our patient. This is consistent with findings from systematic reviews which emphasize that postoperative outcomes are optimized when a comprehensive team is involved in the care of kidney transplant recipients.

Conclusion

This case underscores the need for vigilance in post-transplant monitoring and a readiness to escalate care when conservative measures fail. It also reinforces the value of a multidisciplinary team in managing complex cases to ensure the best possible outcomes for kidney transplant recipients.

References

1. Kazuhiro Takahashi, Rohini Prashar, Krishna G Putchakayala, William J Kane, Jason E Denny, et al. (2017) Allograft loss from acute Page kidney secondary to trauma after kidney transplantation. World J Transplant 7: 88-93.
2. Rajan Veeratterapillay, Ajay Sharma, Ahmed Halawa (2018) Management of Urine Leak Following Renal Transplantation: An Evidence-Based Approach. J UrolNephrol Open Access 4: 1-5.
3. Jesmar Buttigieg, Andrei Agius-Anastasi, Ajay Sharma, Ahmed Halawa (2018) Early urological complications post kidney transplant. Research Gate.
4. Susanne Deininger, Silvio Nadalin, Bastian Amend, Martina Guthoff, Nils Heyne (2021) Minimal-invasive management of urological complications after kidney transplantation. International Urology and Nephrology 53: 1267-1277.
5. Mehmet Sarier, Ozlem Yayar, Asuman Yavuz, Hasan Turgut, Erdal Kukul (2021) Update on the Management of Urological Problems Following Kidney Transplantation. Urologia Internationalis 105: 541-547.
6. lthaf K Majeed, Om Kumar Yadav, Sameer Taywade, Rajesh Kumar, Arjun Singh Sandhu (2024) Precise Localization of Urine Leak After Renal Transplantation on Radionuclide Renography: Added Value of the Unclamped Drainage Tube and SPECT-CT. Nucl Med Mol Imaging 58: 377-378.
7. Michelle Minkovich, Nikita Gupta, Michelle Liu, Olusegun Famure, Yanhong Li (2024) Impact of early surgical complications on kidney transplant outcomes: a retrospective analysis. BMC Surgery 24: 165.
8. Dharmenaan Palamuthusingam, Kuhan Kunarajah, Elaine M Pascoe, David W Johnson, Camel M Hawley (2020) Postoperative outcomes of kidney transplant recipients undergoing non-transplant-related elective surgery: a systematic review and meta-analysis. BMC Nephrology 21: 365.