

Persistent norovirus in kidney transplant recipient - a management dilemma

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INTRODUCTION

- Persistent Norovirus infection in kidney transplant although uncommon is significant.
- Chronic diarrhea impacts quality of life exacerbating underlying renal pathology.
- Direct antiviral agents for chronic norovirus infection are unavailable.
- This case highlights challenges in managing persistent norovirus and its potential role in recurrent glomerular disease.

METHODS

- A retrospective review of a kidney transplant recipient with chronic norovirus infection.
- Clinical course, renal function and immunosuppressive regimen were closely monitored.
- A kidney biopsy was performed to evaluate any graft pathology.
- Reduction of immunosuppression (IS), 4-week trial of nitazoxanide, and referral to infectious disease specialist was made.
- The patient's clinical response and renal function were tracked over time.

CASE PRESENTATION

- **Patient:** 65-year-old female with ESRD due to MPGN underwent living-unrelated kidney transplant in 2016.
- **Immunosuppression:** Thymoglobulin induction; maintained on tacrolimus (6-8 ng/ml), Myfortic 180 mg BID, prednisone 5 mg daily.
- **Clinical Course:** Developed chronic watery diarrhea 5 years post-transplant (6-10 episodes/day); tested positive for norovirus in the stool after exclusion of other causes.
- **Management:** Immunosuppression reduction to once-daily Myfortic, 4-week trial of nitazoxanide was tried with resolution of symptoms. Infectious disease specialist recommended supportive care. Kidney biopsy revealed immune complex deposits, suggesting MPGN recurrence.
- **Outcome:** Kidney function remains stable till date (Creatinine 1.2 mg/dL, eGFR 48 mL/min/1.73m²).

RESULTS AND DISCUSSION

- Persistent norovirus infection can contribute to recurrent glomerular disease in transplant recipients.
- Virus shedding in stool detected by PCR does not confirm viable virus.
- Current management strategies include mainly supportive care, IS reduction, trial of nitazoxanide, and IVIG.
- A multidisciplinary approach is essential to balance infection control and graft preservation.

CONCLUSION

- Persistent norovirus infection remains a challenge in immunosuppressed patients due to the lack of effective antiviral therapy.
- Further research is needed to develop targeted treatments for chronic norovirus infection in transplant recipients.

KEY TAKEAWAYS

- ✓ Chronic norovirus can complicate kidney transplant outcomes.
- ✓ Management requires immunosuppression adjustments and supportive care.
- ✓ Multidisciplinary collaboration is critical.
- ✓ Research on antiviral therapies is urgently needed.

References

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