

University of Groningen

The Presence of Kidney Cyst Infections in Patients With ADPKD After Kidney Transplantation

Geertsema, Paul; Leliveld, Anna M.; Casteleijn, Niek F.

Published in:
Kidney International Reports

DOI:
[10.1016/j.ekir.2022.03.039](https://doi.org/10.1016/j.ekir.2022.03.039)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2022

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Geertsema, P., Leliveld, A. M., & Casteleijn, N. F. (2022). The Presence of Kidney Cyst Infections in Patients With ADPKD After Kidney Transplantation: Need for Urological Analysis? *Kidney International Reports*, 7(8), 1924. <https://doi.org/10.1016/j.ekir.2022.03.039>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

The Presence of Kidney Cyst Infections in Patients With ADPKD After Kidney Transplantation: Need for Urological Analysis?



To the Editor: Although disease course is variable in patients with autosomal dominant polycystic kidney disease (ADPKD), the majority of patients need kidney replacement therapy, of which (pre-emptive) kidney transplantation is the modality of first choice.¹ It is assumed that due to their immunocompromised status, transplanted patients with ADPKD are more at risk for the development of kidney cyst infections. However, until recently, no data has been available to support this hypothesis.² Recently, *KI Reports* published a retrospective study of Ronsin *et al.*³ that investigated the incidence, risk factors and outcomes of cyst infections in transplanted patients with ADPKD. The authors found that though the incidence of cyst infection after kidney transplantation is low, history of cyst infection before transplantation represents the main risk factor.

This raises the question about whether patients with ADPKD with a history of cyst infections may benefit from pretransplantation nephrectomy. In the study of Ronsin *et al.*,³ the risk to develop a new cyst infection in a patient with unilateral nephrectomy and a history of cyst infection was 9.1% versus 12.5% in a patient with a positive history for cyst infection, but without preemptive transplantation nephrectomy. This suggests that preemptive nephrectomy may only lead to a relatively small benefit to reduce the chance for a cyst infection. In addition, recurrent cyst infections were only seen in 1 patient after transplantation, indicating that post-transplantation nephrectomy may be an overtreatment in these patients.

It is known that cyst infections often, are caused by an ascending lower urinary tract infection.⁴ To exclude other underlying causes of infection, it may be helpful to perform a comprehensive urological analysis, including fluid intake, 24-hour bladder diaries, cystoscopy, uroflowmetry, and post-void residual volume measurement. In recent years, patients who undergo kidney transplantation are older, and it is known that age is positively correlated with the presence of (lower) urinary tract infections.⁴ Therefore, a multidisciplinary approach to kidney transplantation

in patients with ADPKD may be essential for optimal treatment.

1. Spithoven EM, Kramer A, Meijer E, et al. Renal replacement therapy for autosomal dominant polycystic kidney disease (ADPKD) in Europe: prevalence and survival - an analysis of data from the ERA-EDTA Registry. *Nephrol Dial Transplant.* 2014;29(suppl 4):iv15–iv25. <https://doi.org/10.1093/ndt/gfu017>
2. Neeff HP, Pisarski P, Tittelbach-Helmrich D, et al. One hundred consecutive kidney transplantations with simultaneous ipsilateral nephrectomy in patients with autosomal dominant polycystic kidney disease. *Nephrol Dial Transplant.* 2013;28:466–471. <https://doi.org/10.1093/ndt/gfs118>
3. Ronsin C, Chaba A, Suchanek O, et al. Incidence, risk factors and outcomes of kidney and liver cyst infection in kidney transplant recipient with ADPKD. *Kidney Int Rep.* 2022;7:867–875. <https://doi.org/10.1016/j.ekir.2022.01.1062>
4. Idrizi A, Barbullushi M, Koroshi A, et al. Urinary tract infections in polycystic kidney disease. *Med Arh.* 2011;65:213–215. <https://doi.org/10.5455/medarh.2011.65.213-215>

Paul Geertsema¹, Anna M. Leliveld² and Niek F. Casteleijn²

¹Department of Nephrology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands and

²Department of Urology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

Correspondence: Paul Geertsema, Department of Nephrology, Expertise Center for Polycystic Diseases, University Medical Center Groningen, PO Box 30.001, 9700 RB Groningen, The Netherlands. E-mail: P.Geertsema@umcg.nl

Received 4 March 2022; accepted 7 March 2022; published online 9 June 2022

Kidney Int Rep (2022) 7, 1924; <https://doi.org/10.1016/j.ekir.2022.03.039>

© 2022 International Society of Nephrology. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

In Reply to “The Presence of Kidney Cyst Infections in ADPKD Patients After Kidney Transplantation: Need for Urological Analysis?”



The Author Replies: We agree with Geertsema *et al.*¹ when they point out that prophylactic