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Letter to the Editor

Impact of surgical approach on renal preservation after radical cystectomy: A nationwide comparative study of neobladder versus ileal conduit

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To the Editor,

We read with great interest the recent discussions regarding long-term renal function after radical cystectomy (RC), which remains the gold standard for muscle-invasive bladder cancer.¹ While post-RC renal deterioration is a known concern, the influence of the surgical approach—open versus robotic—on these functional outcomes has remained under-investigated despite the increasing adoption of robotic platforms.² Using the Korean National Health Insurance Service database (2010–2023), we conducted a nationwide cohort study of 11,098 patients (5777 ileal

conduit [IC] and 5321 neobladder [NB]) to clarify this relationship.

Our findings showed a significant paradox depending on the surgical technique. In the aggregate analysis of the total cohort, NB was associated with a 19% reduction in the risk of chronic kidney disease (CKD) compared to IC (HR 0.81, 95% CI 0.77–0.86, $p < 0.0001$). However, when isolating the open-surgery sub-cohort, open NB significantly increased the CKD risk by 13% compared to open IC (HR 1.13, 95% CI 1.06–1.21, $p = 0.0001$). These contrasting results are visually evident in the Kaplan-Meier survival curves (Fig. 1).

The renal preservation observed in the total cohort appears to be driven by robotic-assisted NB procedures. Robotic platforms provide 3D visualization and wristed instrumentation, enabling more precise, watertight ureteroenteric anastomosis. This precision may mitigate subclinical ureteroenteric strictures, which are major contributors to post-RC renal failure.³

While previous studies suggested no significant difference in renal decline between diversion types,^{4,5} our analysis reveals that the surgical approach could be a critical factor. We believe these results provide necessary granularity for clinicians when

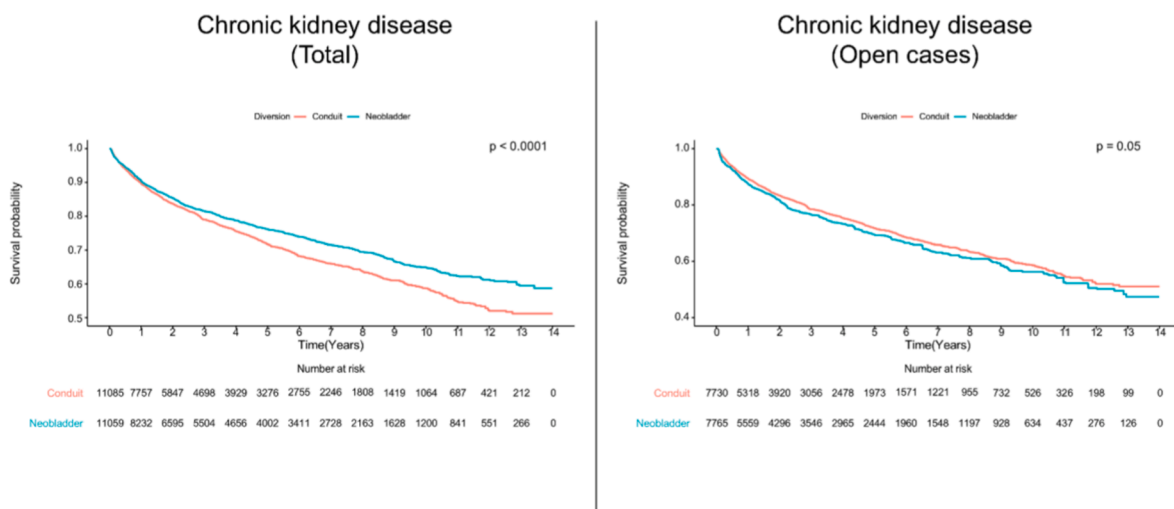


Fig. 1. Kaplan-Meier survival analysis for chronic kidney disease (CKD).

In the total cohort, the neobladder group shows superior renal preservation compared with the conduit group ($p < 0.0001$). In the open-surgery sub-cohort, however, the open neobladder group demonstrates a steeper decline in renal function compared with the open conduit group ($p = 0.05$).

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determining the optimal surgical strategy to ensure long-term renal health.

Conflict of interest

The authors declared no competing interests.

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None.

Appendix B. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.asjsur.2026.03.113>.

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