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INTERVENTIONAL RADIOLOGY

LETTER TO THE EDITOR

Letter to the Editor: Routine desmopressin before non-focal renal biopsy: is the evidence sufficient?

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Dear Editor,

We read with great interest the recently published article by Dugan et al.[1] entitled "Reduction of hemorrhagic complications after non-focal renal biopsy with pre-procedure desmopressin administration". The authors should be congratulated for evaluating a clinically relevant and practical strategy aimed at reducing hemorrhagic complications following non-focal renal biopsy (NFRB).

The absence of clinically significant hemorrhagic complications in the desmopressin (DDAVP) group is noteworthy. In particular, the authors' focus on clinically meaningful endpoints requiring hospitalization or angiographic intervention, rather than solely radiological hematoma formation, is an important strength of the study.

Nevertheless, several methodological considerations should be taken into account when interpreting these findings. First, the study was retrospective and used an observational "before-and-after" design, with the comparison groups not comprising contemporaneous randomized cohorts. Although the biopsy protocol, blood pressure management, coaxial technique, and tract embolization procedures appeared largely standardized throughout the study period, these designs remain susceptible to temporal confounding due to evolving operator experience, institutional practice patterns, and patient selection.[2] Furthermore, the introduction of an additional operator in May 2023 should also be considered as a potential source of temporal variability.[1]

The relatively small number of clinically significant hemorrhagic events (n = 6) further limits the robustness of the statistical analyses. In particular, the wide confidence interval reported in the multivariable analysis suggests that the findings should be interpreted cautiously. Similarly, although no significant difference in thromboembolic complications was observed, the study appears underpowered to adequately evaluate rare adverse events.

On the other hand, it is notable that biopsy tract embolization with absorbable gelatin sponge was performed in both the DDAVP and non-DDAVP groups. This finding suggests that the reduction in bleeding complications is unlikely to be attributable solely to tract embolization and may support a possible contribution of DDAVP administration. Nevertheless, given the study's retrospective observational design, establishing a definitive causal relationship remains difficult.

The current literature should also be interpreted cautiously. In a recently published systematic review and meta-analysis including five randomized controlled trials and a total of 717 patients, DDAVP administration was shown to reduce overall bleeding events following native renal biopsy; however, no significant benefit was demonstrated regarding clinically meaningful endpoints such as hematoma formation, major bleeding, nephrectomy requirement, or blood transfusion.[3] Importantly, the authors emphasized that the available evidence remains limited by small sample sizes and the low number of included studies, and therefore does not currently support routine prophylactic administration of DDAVP before native renal biopsy.

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Accordingly, although the present study provides valuable, hypothesis-generating data, we believe that larger prospective, multicenter, randomized studies are still required before routine DDAVP administration can be recommended for all patients undergoing NFRB.

Footnotes

Conflict of interest disclosure

The authors declared no conflicts of interest.

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