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RESPONSE - UROLOGY LETTER

Response to the letter to editor: 24-h urine osmolality should be used in combination with other urine parameters in urolithiasis patients

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Editor,

We appreciate the valuable comment entitled "24-h urine osmolality should be used in combination with other urine parameters in urolithiasis patients" by Zhao and Yang [1].

The authors accurately describe the important considerations. First, the threshold level of 24-h UOsm in our study was based on single-center experience and may be arbitrary. We also concede that our UOsm cut-off value may not be possible to generalize to other populations. As mentioned by the authors, upper metastable limit osmolality might evaluate individual lithogenic capability and identify patients needing more aggressive hydration therapy [2].

Second, response to the author's query, we did not obtain repeated 24-h urine sample. Repeated 24-h urine collection is not feasible considering patients' compliance in real practice. Repeated urine metabolic tests are performed in heavy stone formers, but the numbers are insufficient for analysis. Instead, spot urine UOsm may be a good alternative, and we described it in the manuscript [3].

The most important issue raised by the author is that 24-h UOsm, as an index of hydration status, could not provide sufficient information in regard to urine PH, solute saturation and individual lithogenic capability. We also agree with the author's suggestion that 24-h UOsm should be used in combination with the other urine parameters such as pH, solute saturations, and upper metastable limit osmolality given the complexity of stone disease [2].

To prevent or reduce the recurrence of stone formation, adequate fluid intake is undisputed modification [4]. To monitor and improve compliance with hydration therapy, practical representative urinary indices may be crucial. Our findings provide important evidence that can be used to guide recommendation regarding adequate fluid intake.

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Compliance with ethical standards

Conflict of interest No potential conflict of interest was reported by the authors.

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