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CORRESPONDENCE

Commentary on NCCT-based assessment of the infundibulopelvic angle

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We read with great interest the recent article by Gao et al. [1] published in *Urolithiasis*, proposing non-contrast computed tomography (NCCT) as an alternative method for assessing the infundibulopelvic angle (IPA). We commend the authors for their effort to simplify preoperative anatomical evaluation while potentially reducing radiation exposure.

Nevertheless, caution is warranted when interpreting IPA measurements derived solely from two-dimensional (2D) imaging. As emphasized in the systematic review by Karim et al. [2] stone clearance following retrograde intrarenal surgery (RIRS) is influenced by multiple anatomical factors beyond the IPA, including infundibular length and width. Therefore, assessment of the angle in isolation may inadequately reflect lower pole anatomy, particularly in cases where an acute IPA coexists with an unfavorable infundibular configuration.

Moreover, accumulating evidence suggests that lower pole accessibility is governed by complex three-dimensional (3D) pelvicalyceal relationships rather than planar angles alone. Inoue et al. [3] demonstrated that 3D anatomical evaluation more accurately predicts flexible ureteroscope accessibility to the lower pole calyx compared with conventional 2D measurements. These findings support the notion that single-angle approaches may underestimate the true anatomical constraints encountered during endoscopic navigation.

In summary, although NCCT-based measurement of the infundibulopelvic angle offers a practical and widely accessible approach, its moderate reproducibility highlights the intrinsic limitations of two-dimensional assessments in capturing the complexity of lower pole anatomy. Integrating 3D pelvicalyceal anatomical evaluation into preoperative assessment may therefore provide a more comprehensive and clinically meaningful framework for predicting outcomes after retrograde intrarenal surgery.

Author contributions BB conceived the idea and drafted the manuscript. KSE, MO, and MOT critically revised the manuscript for important intellectual content. All authors read and approved the final version of the manuscript.

Data availability No datasets were generated or analysed during the current study.

Declarations

Competing interests The authors declare no competing interests.

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