



A new perspective on the treatment of upper ureteric stones

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Dear Editor,

Recently, we read an article by Ahmed et al. [1] with great interest published online in World Journal of Urology. The prospective study described aims to provide a head-to-head comparison between antegrade flexible ureteroscopy (FURS) and retrograde intrarenal surgery (RIRS) for managing large impacted upper ureteric stones (≥ 1.5 cm). The results showed that stone-free rate (SFR) difference between the two groups is clinically significant (FURS, 90.3% VS RIRS, 70%; $p=0.046$). The increased operative and fluoroscopy time associated with antegrade FURS and the higher incidence of urosepsis associated with RIRS. However, the finding of no significant difference in bleeding complications between two groups. This study showed that antegrade FURS is safe and more effective than RIRS. However, we think that the study design should be further improved.

First, the study did not include some basic information about the patients, such as BMI and diabetes. Some studies have indicated that factors including Body Mass Index (BMI) and diabetes mellitus are closely linked to the risk of hemorrhage after Percutaneous nephrolithotomy (PCNL) [2].

Second, the preoperative hydronephrosis of the patients included in this study was not described. Lee and his colleagues [3] depicted the role of hydronephrosis as one of the predictors of bleeding in PCNL. A lesser degree of hydronephrosis along with increased parenchymal thickness was

associated with a higher blood transfusion rate. A greater degree of hydronephrosis allows easier access to the pelvicalyceal system as well as tract dilatation.

Last, details of the preoperative urinary tract infection in included patients were not described. Preoperative infection is closely related to postoperative sepsis after PCNL and preoperative antibiotic therapy may not prevent infected urine [4]. In addition, some studies have pointed out that preoperative urinary tract infection is a risk factor for post-PCNL hemorrhage [5]. The presence of an underlying infection may result in inflammation of the renal parenchyma, making parenchyma more friable and delaying the formation of firm blood clots at the vascular puncture site. Therefore, the subgroup analysis of preoperative infection and non-infection may better reflect the role of FURS is safe and more effective than RIRS.

This research appears to be well-conducted with findings that could potentially change clinical practice, favoring antegrade FURS for large impacted upper ureteric stones. Future studies could enhance these findings by including larger patient cohorts and more detailed demographic data to generalize the results further. We look forward to the author's further follow-up study.

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Declarations

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