

Letter to the Editor regarding the Article “Impact of Anterior Kidney Calyx Involvement of Complex Stones on Outcomes for Patients Undergoing Percutaneous Nephrolithotomy”

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Dear Editor,

We have read the recently published article by Kalkanli et al. [1] with great interest. It is an interesting study on a field that has been rarely studied in the literature. The study focused on the impact of anterior kidney calyx involvement of complex stones on outcomes in patients undergoing percutaneous nephrolithotomy (PCNL). The authors analyzed a total of 132 consecutive patients who underwent PCNL due to complex stones. They were stratified into two groups based on whether the stone extended to the anterior calyx (group 1) or not (group 2). The stone-free rate (SFR) in group 1 was 60% compared to 77% in group 2 ($p = 0.041$). In addition, they concluded that the stone extending to the anterior calyx has a lower SFR.

It is well established that the success of PCNL depends on the size, number, localization, and composition of the stones. Anterior calyceal stones commonly present with staghorn kidney stones. Moreover, it is well known that it is difficult to get stone-free in cases with anterior calyceal stones. Difficulties in finding the way to the anterior calyx and limitations of narrow infundibulum in passing into the calyx are the reasons for lower SFRs.

The study by Kalkanli et al. [1] would have been more informative if the authors had presented data on the lo-

calization of the residual fragments. With the given results, we only understand that SFRs are higher in patients with anterior calyx stones. However, detailed information on SFR in the anterior calyceal and SFR in the other localizations would give us the opportunity to know whether the relatively low SFRs were caused by the residual fragment in anterior localization or not. The PCNL procedure is not totally different for a staghorn calculus with anterior calyx stone. One exception is that it is challenging to reach the anterior calyx even with flexible instruments. So, it can be assumed that residual fragments are located in the anterior calyx. Therefore, it would have been more informative for the literature, if the information on the location of residual stones had been presented. Up to now, only Tepeler et al. [2] have compared the outcomes of PCNL for the treatment of posterior and isolated anterior calyceal stones. They detected no differences in the overall success and complication rates amongst the groups. However, as the authors of the current study stated, most anterior calyx stones are components of staghorn stones rather than isolated stones. Therefore, the study does not fill this gap completely.

Another issue that was not discussed in the article by Kalkanli et al. [1] is the initial access localization. But in this study, the initial access localization was not reported.

The localization of the initial access is one of the most important parameters affecting the SFR, especially in complex stones. For example, upper pole access is an effective way to achieve higher SFRs, especially in staghorn or complex kidney stones [3].

In the study by Kalkanli et al., SFR was evaluated by either kidney-ureter-bladder radiography for opaque stones or CT for nonopaque stones in the first postoperative day. SFR should be evaluated in the first postoperative month. If this had been done, the clinically insignificant fragment ratio would have been higher.

Kalkanli et al. have done valuable research, but well-designed trials with a large sample size are needed to compare the effects of anterior calyceal stones.

Disclosure Statement

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Author Contributions

Ahmet Şahan wrote the text; Alkan Çubuk wrote the text and provided critical revision of the manuscript; Orkunt Özkaptan provided critical revision of the manuscript.

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