



Papillary puncture: still a good practice

Davide Campobasso¹ · Stefania Ferretti² · Antonio Frattini¹

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Dear Editor,

In the last 2 years, the group of Professor Liatsikos published their experience with the infundibular approach in percutaneous nephrolithotomy (PNL) [1, 2]. The authors reported outcomes and complication rates similar to PNL series with conventional papillary puncture [3, 4]. However, several considerations must be made before drawing conclusions about these results. In their first article [1], the authors report their retrospective experience with the infundibular approach in 137 procedures performed by three experienced surgeons in unselected cases and in the second one [2] they conduct a prospective randomized trial (PRT) in two groups of 27 and 28 patients. Apart from the retrospective nature of the first paper and the small sample size—with unknown stone-free status—in the PRT, other limitations are present: long-term follow-up (to rule out infundibular stenosis) is unavailable, as well as meticulous blood test timing to know the minimum hemoglobin value (not specified in the retrospective study; in the PRT the last hemoglobin test was performed at discharge, between 3 and 8 days). No scoring system (i.e., Guy's stone score, S.T.O.N.E. nephrolithometry, CROES nomogram, and S-ReSC) is used, which would provide a standardized grading of stone complexity and of percutaneous stone surgery outcomes to better stratify the study population. Whether there is an increasing risk of bleeding in case of tubeless procedure or with smaller nephrostomy tube or if a different position and access technique or different types of pelvicaliceal system determine significant differences in the number of tracts and in operative and

fluoroscopy time is still to be confirmed [3–7]. Furthermore, our major hesitations about this technique are linked to the potential for more widespread parenchymal damage due to the longer tract in the kidney with the infundibular approach. Aside from Sampaio's anatomical study [8], the short tract between the renal parenchyma and the papilla is a precaution to reduce invasiveness and the risk of vascular injury deriving from the papillary puncture. Functional comparative studies with renal scintigraphy after surgery may add more information about this aspect. This consideration persists despite the interesting imaging study of Kallidonis et al. [9] considering different approaches (infundibular, papillary and renal pelvis) and positions (prone and supine) and concluding that the parenchymal sites involved in the tract dilation are not related to significant differences in terms of vascularization. First of all, it was conducted with non-dilated collecting systems. Second, we think that the same considerations expressed by the authors themselves for the studies by Sampaio apply to their approach, as the damage caused by the tract dilatation has not been considered. For these reasons, the authors did not fully persuade us of a comparability or superiority of the infundibular approach [10]. Further RCT considering variables previously described are warranted before leaving established practice.

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Compliance with ethical standards

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✉ Davide Campobasso
d.campobasso@virgilio.it

- ¹ Urology Unit, Civil Hospital of Guastalla, Azienda USL-IRCCS of Reggio Emilia, Reggio Emilia, Italy
- ² SS Endourology and Less Invasive Percutaneous Surgery Urology OU, Hospital and University of Parma, Parma, Italy

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