



Appropriate pre-operative preparation and strict compliance with surgical principles should be the main mechanism to prevent infectious complications in endoscopic stone surgery

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Dear Editor,

I read the article entitled ‘Feasibility and relevance of urine culture during stone fragmentation in patients undergoing percutaneous nephrolithotomy and retrograde intrarenal surgery: a prospective study’ by De Lorenzis et al. [1] with great interest. The authors aimed to determine the feasibility and utility of performing urine culture from stone fragments (SFUC) to facilitate the management of postoperative infectious and septic complications in patients who underwent percutaneous nephrolithotomy (PNL) and retrograde intrarenal surgery (RIRS). The authors concluded that SFUC has a high positive predictive value and specificity to detect positive stone culture (SC) and postoperative systemic inflammatory response syndrome (SIRS). However, I would like to highlight some issues.

First of all, this is a prospective study however the study cohort is not homogenous. There were both PNL and RIRS cases which are entirely different procedures, RIRS-using the natural orifices with high intrarenal pressures and PNL-crossing the renal parenchyma leading renal damage. Thus, I think there is no rationale to compare inflammatory processes between these techniques. It has been stated that all patients had a urine culture from bladder 2–3 weeks preoperatively. Three weeks is also relatively a long-time and might allow bacterial growth while on waiting list for operation. Also, it was reported that 20.6% patients had positive bladder urine culture. To obtain a preoperative sterile

urine culture is mandatory in renal stone surgery. In case of persistent bacterial growth operation should be performed under antibiotic coverage. And also, especially in completed obstructed systems, operation must be lasted if a suspicious view like purulent urine suggesting infection exists during surgery.

It was stated that the stone size varies between 8.2 and 14 mm in RIRS group and 12.9% of these cases are staghorn. Is it possible a 14 mm stone to be staghorn? The operative time of RIRS also must be questioned. The reported operative time of RIRS in this study varies between 85 and 130 min. It has been several times emphasized that longer operative time and forced irrigation is related to infectious complications in RIRS [2]. Lasting RIRS in 60–90 min seems reasonable in the light of the current literature. When considering all aforementioned factors, I think that it is not possible to find a correlation between SFUC/SC and infectious complications as well as SIRS following RIRS and PNL.

Appropriate pre-operative preparation and strict compliance with surgical principles should be the main mechanism to prevent infectious complications.

Sincerely yours.

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Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

Ethical approval This article does not contain any studies with human participants performed by the author.

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2. Tonyali S (2020) How to prevent infectious complications following flexible ureteroscopy? *World J Urol* 38(7):1813–1814. <https://doi.org/10.1007/s00345-019-02908-2>

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