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UROLITHIASIS

Laparoscopic pyeloplasty with concomitant pyelolithotomy – too much of a good thing?

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The authors of the paper "Approach to kidney stones associated with ureteropelvic junction obstruction during laparoscopic pyeloplasty" should be congratulated on presenting their experience with this topic. Although ureteropelvic junction (UPJ) obstruction itself leads to an increased risk of stone formation due to obstruction and chronic urinary infection, controversy still exists regarding the ideal management of concomitant UPJ obstruction and kidney stones. Undoubtedly, laparoscopic pyeloplasty, introduced in 1993, evolved worldwide as the first minimally invasive option providing at least comparable results to that of open surgery, while achieving the added goals of low morbidity, shorter hospital stay and shorter convalescence [1, 2]. Excellent results are reported no matter which method is used, dismembered or non–dismembered, even in cases with difficult and atypical anatomical anomalies [3, 4].

Similarly to the authors' technique, I personally prefer transperitoneal approach for pyeloplasty. However, extraperitoneal approach offers some advantages and may be also used for the treatment of other concomitant conditions eg. tumors and stones [5]. Preferences and experience of the surgeon remain the main determinants of choice, although there might be some theoretical advantages to the retroperitoneal approach of managing urinary stones. These advantages include: less dissection required to expose UPJ area, reduced risk of injury to intraperitoneal organs and reduced risk of ileus caused by urinary leakage. The authors' points concerning the technique seem to be very reasonable and straightforward. If the stone is accessible in the open renal pelvis, it is grasped with a laparoscopic instrument. When it is not, a flexible instrument is introduced via a working port and the stone is removed with a basket. This technique has also been reported by other authors [6]. However, one must be careful when catching single or multiple stones because when these are lost in the peritoneal cavity they may cause irritation and/or inflammation. Another option that may be applied in the treatment of concomitant kidney stones and UPJ obstruction before laparoscopic pyeloplasty is an endourological approach. It may be a valuable scenario in selected cases, however non–radical PCNL may lead to fragmentation of the stone and development of perinephric adhesions which may make future laparoscopy much more difficult or even impossible to perform. On the other hand ESWL and anterograde laser lithotrypsy in cases of UPJ obstruction offers unacceptably low rates of stone–free procedures.

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