How Should We Treat Renal Calculi Accompanying to Simple Renal Cyst?

TO THE EDITOR:

Simple renal cysts are the most common benign conditions of kidney especially in elderly patients. Some authors advocate that renal stone may be a risk factor for simple renal cyst.1,2 The treatment of renal calculi with renal cyst is a challenging issue requiring surgical experience. It may require different treatment modalities to achieve high success and low morbidity rates. We read the retrospective study presented by Chen et al3 on treatment of simple renal cyst coexisting with renal calculi with great interest. They integrate the marsupialization technique into the percutaneous nephrolithotomy and did not observe any recurrence in a mean follow-up period of 22 months. We congratulate the authors because of management of 2 conditions with single procedure.

We would like to pose a few questions and underline some points about this article. First, it is well known that laparoscopic decortication is a minimally invasive, safe, and efficacious procedure with low recurrence rates in management of symptomatic renal cysts.4 The excision of the cyst wall plays a key role in prevention of the recurrence of symptomatic renal cysts. Several authors have presented that cyst wall should be circumferentially excised within a distance of 5 mm from renal parenchyma during laparoscopic decortication.4,5 In another study, Shao et al6 performed a 4-cm incision at the avascular area of the interior of cystic wall through 20.8-Fr nephroscope using laser to prevent the recurrence. In the study presented Chen et al, percutaneous renal access was performed to the collecting system through the simple renal cyst. Then, they dilated the renal parenchyma as well as the cyst wall up to 18 Fr using fascial dilators. Although the authors reported a 100% radiologic success rate in the mean 21.0 months follow-up period, we believe that wide excision of the cyst wall may improve the symptomatic success rate that was not assessed in their study.

Secondary, it is well known that transformation of a simple cyst into a renal cell carcinoma is rare.7 However, exclusion of malign differentiation may be more complicated, and exact diagnosis can not be done with only radiologic methods. The cytologic findings obtained from cyst aspiration alone appear to be insufficient and negative cytology does not exclude renal cell carcinoma because cytology has a low yield and a known false-negative rate for renal cell carcinoma.7 As mentioned in the study, the cyst fluid was examined for further diagnosis of the cyst. Unfortunately, pathologic examination of cyst wall was not performed. This point may be regarded as one of the limitation of the technique. This reported technique could be refined with excision of the wide cyst wall.

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References

Reply by the Authors

We thank the authors for their thoughtful comments on our study and the opportunity to clarify some of the points raised by them.

First, the excision of the cyst wall within 5 mm of the renal parenchyma is the preferred method in the laparoscopic cyst decortication. However, it is not generally applied to percutaneous intrarenal cyst marsupialization.
As mentioned in the previous studies,\textsuperscript{1,2} a portion of cyst wall can be excised to marsupialize the cyst into the retroperitoneum. Alternatively, the renal cyst can be marsupialized directly into the collecting system. In our experience, the most important thing is to join the cyst with the renal collecting system to allow continuous drainage of its content. We place the nephrostomy tube and the double J stent for a prolonged period to ensure the marsupialized channel remained opened. Additionally, several authors\textsuperscript{2,3} performed fulguration of the interior of the cyst wall to prevent the recurrence.

Second, the Bosniak system is used for classifying cystic renal masses on computed tomography scans. Category I and II cysts have <1% and 3% malignant potential, respectively.\textsuperscript{4} In this study, 14 of our patients had Bosniak I category cysts, and 2 patients had category II cysts.\textsuperscript{5} During ureteroscopic inspection of the cyst, we did not observe any signs suggestive of malignancy. If there were signs, we could collect specimens under direct vision. Admittedly, sometimes a wide cyst wall excision for pathologic examination is difficult to achieve in the percutaneous method. This is one of the limitations of our technique.

References