

Letter to the Editor

MANAGEMENT OF NEPHROLITHIASIS

To the Editor:

I am writing with regard to question 4 of the hematuria review questions published in the July 2003 issue of *Hospital Physician*¹ [on the management of a patient with 3 stones identified radiographically in the right renal pelvis, the largest of which is 10 mm]. While choice A [extracorporeal shock wave lithotripsy (ESWL) to break apart larger stones in the renal pelvis] may be the best answer on a nephrology examination, it is not the best answer in clinical practice. From a urology standpoint, this patient needs to have his kidney imaged—the next best step would be a stone protocol computed tomography (CT) scan (non-contrast spiral CT scan of the abdomen and pelvis). This is important in evaluating the renal anatomy. Radiographic examination of the kidneys, ureters, and bladder (KUB) does not tell you if the patient has hydronephrosis or some anatomic variant that might affect one's decision to perform an ESWL. Furthermore, we do not know the total stone burden in the right kidney. We only know that the largest stone is 10 mm. If the other two stones are 9 mm, then this patient's total stone burden is 2.8 cm, which is enough to justify a percutaneous nephrolithotomy. At the very least, the patient would need a stent for an ESWL in such a situation, and the patient could expect to have more than one ESWL treatment to effectively treat his stone burden. Finally, the differential diagnosis of right upper quadrant calcification on a KUB includes gallstones. A noncontrast CT scan would confirm the diagnosis.

Howard L. Adler, MD
*State University of New York
Stony Brook, NY*

In reply:

We appreciate the comments by Dr. Adler on question 4 of the hematuria review questions. We presented a case of a patient with flank pain and hematuria from renal stones located in the right renal pelvis. A flat plate radiograph of the abdomen revealed 3 stones, of which the largest was 10 mm. The patient had no evidence of infection or obstruction. We suggested that the most appropriate management of this patient was ESWL. Dr. Adler suggests that a noncontrast flank CT scan (stone protocol) to further characterize the location and number of stones would be the best choice. He states that it is important to evaluate the renal anatomy and stone burden as this information may affect one's decision to perform ESWL. Dr. Adler's argument makes the assumption that the patient's total stone burden was high (2.8 cm). If this supposition were true, we would agree that a CT scan would be warranted for all the reasons he suggests. However, with a single large stone and 2 smaller stones, as was present in this patient's case, there is no indication. Although it is reasonable to obtain a stone protocol CT scan to assess anatomy and stone burden, we do not believe that it is essential. First, the patient has no evidence of infection, urinary obstruction, or other anatomic concerns that would require a CT scan. Secondly, he has no stone larger than 1 cm that would warrant a stone protocol CT scan or percutaneous nephrolithotomy. Thus, it is unlikely that the patient would require a stent prior to ESWL therapy. Based on these data, the best answer in this case is performance of ESWL to treat the patient's nephrolithiasis.

Ursula C. Brewster, MD
Mark A. Perazella, MD
*Yale University School of Medicine
New Haven, CT*

Reference

1. Brewster UC, Perazella MA. Hematuria: review questions. *Hosp Physician* 2003;39(7):17, 18.

Copyright 2003 by Turner White Communications Inc., Wayne, PA. All rights reserved.