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SPONTANEOUS RUPTURE OF THE KIDNEY PELVIS SECONDARY TO IMPACTED URETERAL CALCULUS

A. W. BOHNE, M.D., AND J. L. IRWIN, M.D.

SPONTANEOUS RUPTURE of the kidney parenchyma with hemorrhage or urine extravasation is not uncommon. Usually there is pre-existing renal disease that weakens the wall of the kidney or the renal pelvis. The causes commonly cited are hydronephrosis, lithiasis, tuberculosis, abscess, tumors and arteriosclerosis. However, spontaneous rupture of the kidney pelvis secondary to an impacted calculus is exceedingly rare.^{1,2,3} Following is a case report of rupture secondary to a ureteral calculus.

CASE REPORT (C.K.) — A 74-year-old Caucasian male was well until 10 days prior to admission when he developed severe left lower quadrant colicky abdominal pain. This was followed by nausea and vomiting. Five days prior to admission he developed chills and fever. He also noted a dull left flank ache. The patient was in Europe and made arrangements to fly to Henry Ford Hospital. He was admitted July 27, 1963.

Physical examination on admission revealed a markedly fatigued male in no acute distress. Temperature was 100.2 F. There was left flank and left lower quadrant tenderness. An excretory urogram revealed a left ureteral calculus, mild left hydronephrosis and extravasation of dye around the renal pelvis (Figure 1). On August 2, a No. 7F ureteral catheter was inserted to the left renal pelvis and a marked hydronephrotic drip was noted. A left retrograde pyelogram was done which revealed the left ureteral calculus and again the extravasation was noted (Figure 2). The ureteral catheter was left indwelling to dilate the ureter and facilitate passage of the stone.

A repeat left retrograde on the seventh day showed minimal extravasation (Figure 3). The ureteral catheter was removed on the eleventh day and the patient promptly passed the calculus. On the twelfth day an excretory urogram revealed normal kidneys and ureters (Figure 4). One month later repeat films were normal.

DISCUSSION

Spontaneous parenchymal rupture with hemorrhage requires surgical intervention, usually with nephrectomy and drainage. Rupture of the renal pelvis usually will require surgical intervention. In our case sepsis was not an important factor and the extravasation was small. Therefore, conservative therapy was chosen.

SUMMARY

A case report of a rare entity, spontaneous rupture of the renal pelvis secondary to an impacted calculus, is presented. Conservative therapy accomplished good results.

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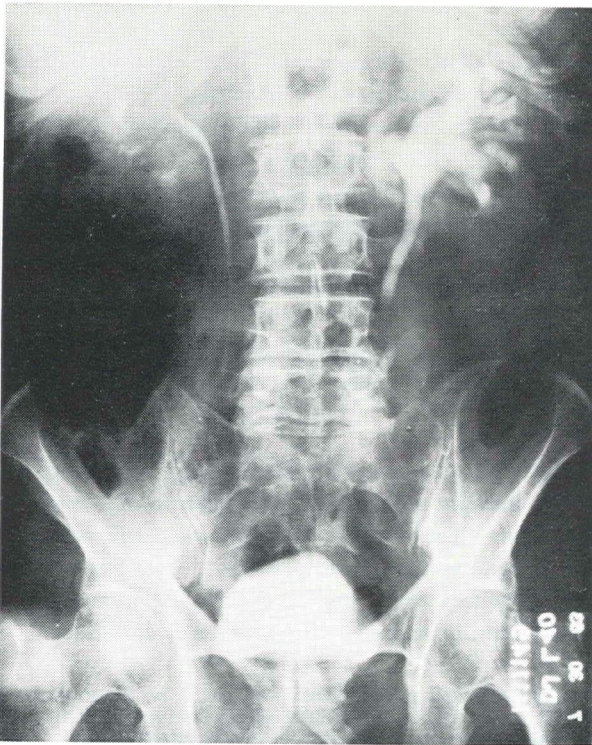


Figure 1

Initial excretory urogram with extravasation of dye around renal pelvis.

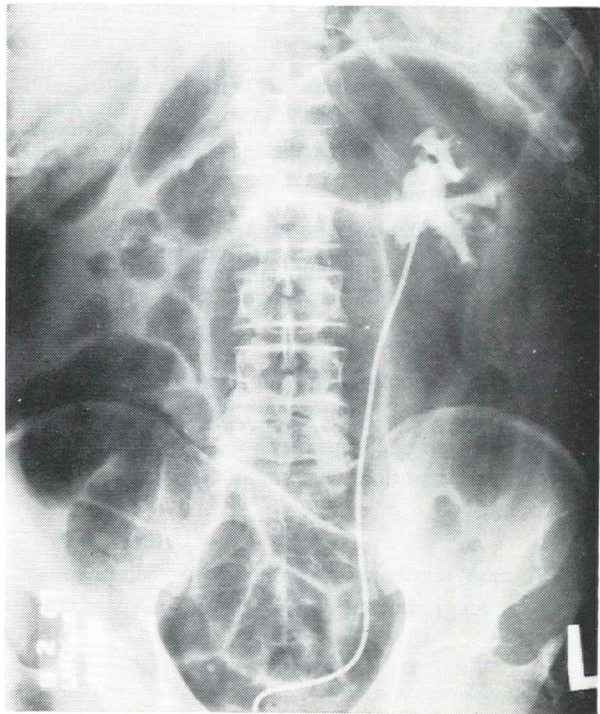


Figure 2

Initial retrograde pyelogram. Note calculus in lower third of ureter.

IMPACTED URETERAL CALCULUS

Figure 3

Repeat retrograde pyelogram after seven days of indwelling ureteral catheter.

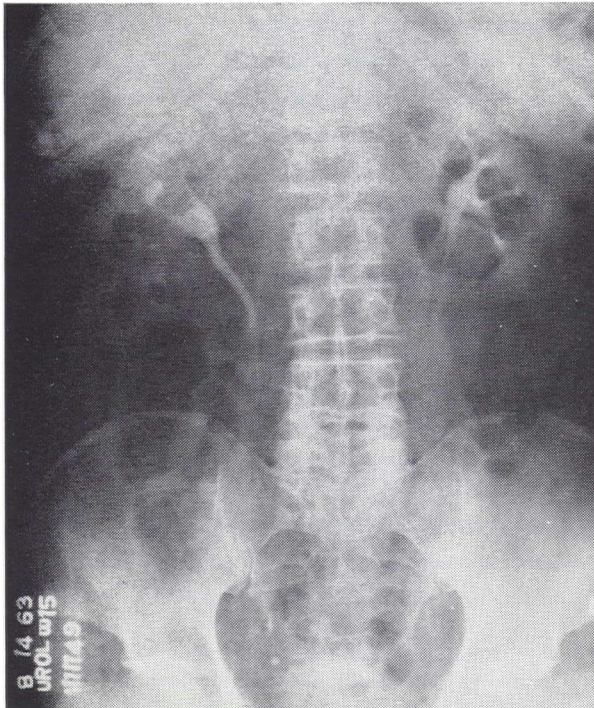
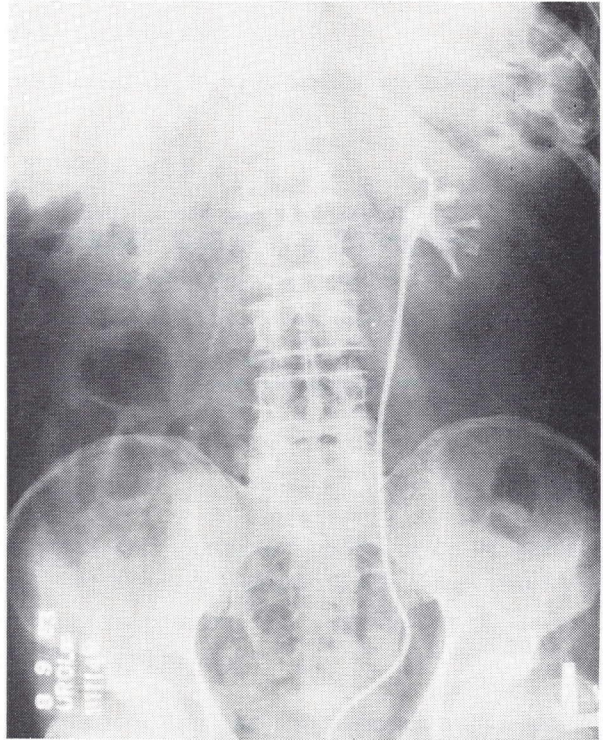


Figure 4

Normal excretory urogram after left ureteral calculus was passed spontaneously.

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ACKNOWLEDGMENTS

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