

ACUTE URETERAL OBSTRUCTION FROM BUCKSHOT

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ABSTRACT — A patient with acute ureteral obstruction caused by buckshot is reported. Its occurrence is rare, and its management is similar to that of ureteral calculus.

Renal colic is a nonspecific reaction to acute obstruction of the urinary collecting system. An unusual cause of this symptom is described in the following case.

A twenty-two-year-old black man was admitted to Wayne County General Hospital on February 24, 1977, thirty-three hours after having sustained a 12-gauge buckshot wound in



FIGURE 1. (A) Scout film June, 1977, revealed multiple radiopaque foreign bodies; 5 in right upper quadrant, 1 overlying fifth lumbar vertebra, and 1 overlying left ilium. (B) Excretory urogram July, 1977, revealed right hydronephrosis secondary to obstructing buckshot, with 4 pellets shown in right upper quadrant.

the right upper quadrant of the abdomen. The patient complained only of mild abdominal pain and nausea. On examination several pellet holes were observed in the skin of the right upper quadrant. The abdomen was tender to palpation, and normal bowel sounds were heard. The physical examination was otherwise unremarkable. The urine was of normal color and acellular. An abdominal scout film revealed several radiopaque foreign bodies in the right upper quadrant compatible with shotgun pellets.

An exploratory laparotomy was performed, and multiple lacerations were found in the lower edge of the right lobe of the liver. A right retroperitoneal hematoma was palpated but not explored. A colostomy was performed because of two perforations in the transverse colon, and the area was well drained. The postoperative course was uneventful, and the patient was discharged from the hospital twelve days after surgery.

Three months later the patient was readmitted for closure of the colostomy, and a scout film again revealed five radiopaque foreign bodies in the right upper abdominal quadrant, unchanged in number and location from his first admission (Fig. 1A). The colostomy was closed without complications.

On July 18, 1977, he came to the emergency room with a one-week history of right renal colic and recent onset of gross hematuria. An excretory urogram revealed a right hydro-ureteronephrosis and a distal ureteral obstruction by a pellet that formerly had been in the right upper abdominal quadrant (Fig. 1B).

The patient was admitted to the hospital, and three days later a 3 by 3 mm. shotgun pellet was passed spontaneously. A scout film of the abdomen showed absence of the obstructing radiopacity, and a repeat excretory urogram revealed normal upper urinary tracts.

Comment

The occurrence of buckshot colic is unusual and interesting; particularly so when 2 cases occur in the same urologic unit, our first case was reported by McClellan in 1955.¹ His patient also was treated by permitting the shot to be passed spontaneously. One other case has been cited in the literature, and in that instance the shot was removed by ureterotomy.² The treatment of this entity should be guided by sound surgical principles, and once the initial traumatic period has passed, it is similar to that of a ureteral calculus. Because of the size of the pellets, most of these should pass spontaneously provided there are no other indications for surgical intervention.

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References

1. McClellan RE: Unusual case report: "buckshot colic," Univ. Mich. Med. Bull. 21: 107 (1955).
2. Hewitt RL, and Sanders PW: Acute ureteral obstruction from gunshot; report of an unusual case, Ann. Surg. 162: 261 (1965).