Laparoscopic Repair of Bochdalek Hernia, Presenting as a Renal Colic

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Bochdalek hernia (BH) is a posterolateral diaphragmatic congenital defect. Although most commonly diagnosed at birth, 0.17%-6% of cases can also be seen in adults.

A third of the cases may contain abdominal organs like small bowel, kidney, or spleen.

In our literature search, we only found 3 reported cases of urinary obstruction secondary to herniation of the renal pelvis through a BH. Here we describe a rare case of upper urinary tract obstruction caused by a BH successfully treated by laparoscopic surgery in our center. UROLOGY 132: e1−e2, 2019. © 2019 Elsevier Inc.

CASE

A 78-year-old woman presented to the emergency department with severe right lumbar colic pain, radiating to the flank, with no prior history of similar symptoms. A CT Urogram revealed a herniation of the renal pelvis through the right diaphragmatic crus, with moderate hydronephrosis (Fig. 1). On the emergency department, pain was successfully managed with analgesics. Given the persistence of symptoms during follow-up, laparoscopic repair was decided.

The day of the surgery, a retrograde ureterogram was performed. The defect was identified and sutured with Prolene 2-0 (Fig. 2). The patient was discharged the next day, with no recurrence of symptoms during the following months. A postoperative CT shows reduced renal pelvis (Fig. 3).

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Figure 1. CT urogram showing herniation of right renal pelvis through the diaphragm.

Figure 2. Surgical view of hernia reduction: (A) renal pelvis, (B) ureter, and (C) diaphragmatic defect.

Figure 3. Postoperative CT showing reduced renal pelvis.
COMMENTARY
Rarely BH can present in adulthood, with only 3 reported cases having kidney obstruction. To our knowledge, this is the first case of kidney obstruction due to a BH in an adult to be resolved by laparoscopic intervention. This treatment offers a more aesthetic result with less pain and shorter hospital stay, and should henceforth be considered as a therapeutic option in cases of upper obstructive uropathy. Patients who are not candidates for surgery can undergo ureteral stenting as an option for symptomatic relief.