

# Internal Supravesical Hernia: A Rare Cause of Acute Small Bowel Obstruction

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## Abstract

## Case Report

Supravesicular hernia is unusual and little reported in the literature. The diagnosis is not simple. Unrecognized or untreated, supravesicular hernia can lead to occlusive complication, which implies urgent surgical treatment, with the risk of having to resort to a stoma. We report a rare case of an internal supravesicular hernia revealed by an acute small bowel obstruction. An emergency operation was performed. The bowel was edematous but still viable. The supravesicular hernia's ring was repaired, and the patient made a good recovery.

**Keywords:** Supravesicular hernia, small boel obstruction, intestinal necrosis, stoma.

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## INTRODUCTION

First described in 1814 [1], supravesicular hernia is unusual and little reported in the literature. The diagnostic of supravesicular hernia is not easy in simple cases. Complications such as small bowel occlusion may reveal a supravesicular hernia. We report the case of a patient with an internal supravesicular hernia revealed by an acute small bowel obstruction.

## CASE REPORT

A 28-year-old man with BMI 25 was admitted to the emergency department with a 12-h duration history of abdominal pain, with bilious vomiting. No significant past medical or surgical history was noted. On admission, he was hemodynamically stable, the temperature was 37.2°C, pulse rate of 99/min, respiratory rate 28/min, and blood pressure 139/89 mmHg. The abdomen was distended and tympanic on percussion. There was no evidence of peritonism. Auscultation disclosed a silent abdomen and the rectal examination revealed an empty rectum. Laboratory investigations were within normal, range except for a leukocyte count of 11200/mm<sup>3</sup>. An abdominal X-ray in the upright position showed multiple gas-fluid levels without any sign of pneumoperitoneum (Figure 1). CT scan with intravenous contrast showed a small bowel obstruction due to dilated bowel loops descending downward anterior and laterally to the bladder (Figure 2). An emergency operation was performed. At

laparotomy, a loop of terminal ileum was found incarcerated in a supravesicular hernia. The incarcerated intestine was reduced. The bowel was edematous but still viable, and the hernial ring was a 2 cm x 3 cm defect running anteriorly to the bladder (figure 3). The supravesicular hernia's ring was repaired with 2/0 Polydioxanone (PDS). After an uneventful recovery, our patient was discharged from the hospital in stable conditions on the four post-operative day.



Figure 1: Abdominal X-ray showing small bowel obstruction

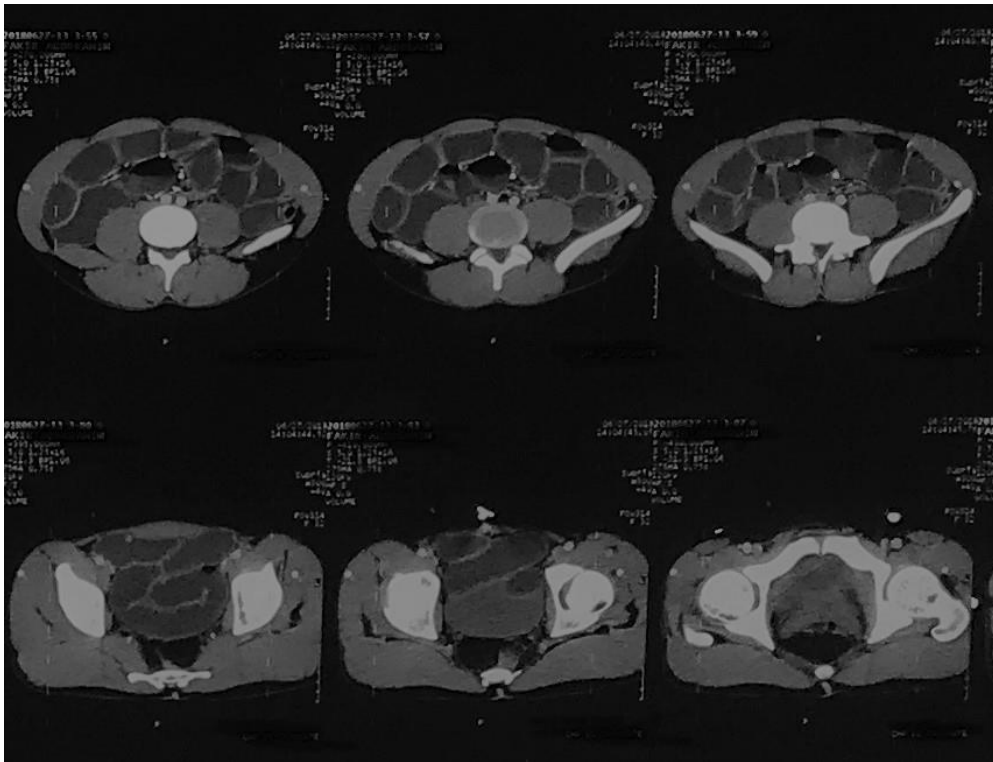


Figure 2: CT scan showed a small bowel obstruction due to dilated bowel loop compressing the bladder



Figure 3: Intraoperative view of the hernial orifice after small bowel reduction

## DISCUSSION

Supravesical hernia is a rare cause of internal hernias: 26 cases have been identified in the literature since 1814 [1]. Supravesical hernias tend to occur in men over than 50-year-old [2].

This internal hernia arises from the supravesical fossa, and then it may protrude into the prevesical space of Retzius or the paravesical space [3].

The clinical symptoms point to an acute small bowel obstruction. The CT scan with intravenous contrast may show the dilated bowel loop near the bladder [4].

The surgical treatment is not standardized. Reduction of the herniated loops followed by the closure of the hernia's sac is considered sufficient [2]. The eversion and resection of the hernial sac, proposed by some authors [5], is considered unnecessary by the majority of the authors.

In the literature, only a few cases were treated by laparoscopic surgery [6-8]. Yet, laparoscopy seems to be an interesting approach, because of the easy access it allows to the prevesical region. In the case of intestinal necrosis, surgical treatment meets the usual criteria for resection.

The question of prosthetic repair remains, insofar as it is the gold standard for inguinal hernias and incisional hernias. Mesh reinforcement was not adopted in previously reported cases [1], nor our case.

## CONCLUSION

Supravesical hernia is a rare internal hernia. It can lead to acute intestinal obstruction with an increased risk of intestinal necrosis. Surgical management is not standardized. The place of laparoscopy and mesh repair is still undefined.

**Consent:** Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

**Competing Interests:** All authors declare no competing interest.

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