



## A RARE CASE OF BLADDER DIVERTICULAR RUPTURE

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**ABSTRACT** Spontaneous rupture of a urinary bladder diverticulum is an exceedingly rare condition and often presents with nonspecific abdominal symptoms, mimicking other acute abdominal pathologies. Early diagnosis and prompt surgical management are crucial to prevent morbidity and mortality. We report a rare case of spontaneous rupture of a bladder diverticulum associated with acute appendicitis, successfully managed by laparoscopic diverticulectomy and bladder repair. |

**KEYWORDS** : Bladder Diverticulum, Spontaneous Rupture, Peritonitis, Laparoscopic Diverticulectomy, Bladder Repair.

### INTRODUCTION

Spontaneous rupture of the urinary bladder is a rare but serious surgical emergency, often secondary to underlying bladder pathology such as diverticulum, malignancy, infection, or outlet obstruction. Bladder diverticula are mucosal outpouchings through the detrusor muscle and may rupture spontaneously due to increased intravesical pressure, infection, or wall weakness. The clinical presentation often mimics other causes of acute abdomen, making preoperative diagnosis challenging. We present a rare case of spontaneous rupture of a bladder diverticulum with coexistent acute appendicitis, managed successfully by laparoscopic approach.<sup>2,3</sup>

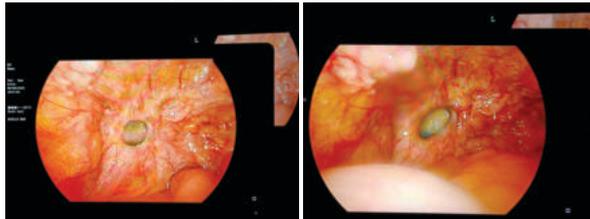
### Case Presentation

A 49-year-old lady, presented to the Emergency Department with complaints of severe abdominal pain, constipation, and nausea.

The patient was apparently asymptomatic one day prior to admission when she developed sudden-onset severe pain in the lower abdomen, which later became generalized. The pain was continuous, non-radiating, and associated with nausea and vomiting. There was no history of trauma, instrumentation, or recent catheterization, burning micturition, hematuria, or urinary retention, lower urinary tract symptoms. She has no known comorbidities. She underwent laparoscopic hysterectomy in 2018.

On examination, the patient was conscious, alert, in distress due to pain with mild fever and tachycardia, diffuse tenderness with guarding and rigidity and Absent bowel sounds.

CT Abdomen and Pelvis with IV contrast was done which revealed Free fluid in pelvis and right iliac fossa, Defect in bladder diverticulum wall, Elongated appendix. Hence we proceeded with diagnostic laparoscopy + bladder diverticular repair + appendectomy. She tolerated the procedure well. Post-operative period was uneventful. Patient was discharged on post op day 2.



### DISCUSSION

Spontaneous rupture of the bladder diverticulum is a rare but potentially life-threatening condition. It may occur due to factors such as chronic urinary retention, infection, or intrinsic wall weakness.<sup>1</sup> The clinical presentation can mimic hollow viscus perforation or peritonitis of other origins, making diagnosis is difficult. CT cystography or contrast-enhanced CT scan is the investigation of choice for diagnosis. Early recognition and surgical intervention are key to a favorable outcome.<sup>4</sup> Traditionally, open repair has been performed, but laparoscopic repair offers the advantages of minimal invasiveness, faster recovery and better visualization.

In our patient, laparoscopic management allowed simultaneous treatment of both pathologies—acute appendicitis and ruptured

bladder diverticulum—in a single minimally invasive procedure, with good postoperative recovery.

### CONCLUSION

Spontaneous rupture of a bladder diverticulum is an uncommon but important cause of acute abdomen.

High index of suspicion and prompt surgical management are essential for a good outcome.<sup>3,4</sup> Laparoscopic repair provides a safe and effective alternative to open surgery in suitable patients. □

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