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**Case Report**

# A rare case of intestinal obstruction caused by internal hernia through post hysterectomy peritoneal defect

**Ravi Kumar Sabu Murugesan*, Kannan Ross, Joyce Prabakar**

Department of General Surgery, Madras Medical College, Chennai, Tamil Nadu, India

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***Correspondence:**
Dr. Ravi Kumar Sabu Murugesan,
E-mail: mrksabu65@gmail.com



## ABSTRACT

Internal hernia is a rare cause of intestinal obstruction. Nowadays acquired internal hernias are in increasing trends due to increased surgical procedures thus iatrogenic causes surpassing congenital internal hernias. Internal hernias after hysterectomy due to peritoneal defect is extremely rare. Here we present a case of 67 years old female status post hysterectomy ten years back, also a known type 2 diabetic presented to the emergency department with features suggestive of intestinal obstruction. Patient was taken up for emergency laparotomy and intra operative findings revealed small bowel loops herniating in a cavity that is formed by bladder anteriorly, caecum and sigmoid colon laterally and rectum posteriorly. Bowel loops were released. The bowel was found to be viable and the defect was closed. Bowel movements resumed on the third post-operative day. This case is presented here as it is an extremely rare case of internal hernia causing small bowel obstruction.

**Keywords:** Internal hernia, Intestinal obstruction, Post hysterectomy, Peritoneal defect

## INTRODUCTION

Internal hernias are protrusions of the viscera through the peritoneum or mesentery but remaining within the peritoneal cavity. The orifices through which the small bowel herniates is usually a pre-existing aperture (e.g.; fossa of Landzert) or pathologic defects which may be congenital or due to previous surgery.[1] Internal hernias occurring as a result of defect in the pouch of Douglas is extremely sporadic. We found out only 6 such cases reported so far.[2] Here we describe a case of internal hernia through a rent in the peritoneum post hysterectomy.

## CASE REPORT

A 67 years old female was admitted in our emergency department with chief complaints of abdominal distension, abdominal pain, vomiting for the past 4 days. She also had a history of not passing stools for the past 1 week and not passing flatus for the past 4 days. On examination patient was conscious, oriented with mild dehydration. She had a past history of hysterectomy done 10 years back. Vital signs showed tachycardia with normal blood pressure and saturation. Per abdomen findings revealed diffusely distended abdomen with diffuse tenderness and no guarding and rigidity. Per rectal findings showed collapsed rectum with no faecal staining. Blood investigations revealed elevated WBC count. Patient was proceeded with radiological investigations. In X-ray abdomen, air fluid level was seen. Nasogastric tube was inserted with continuous drainage and the patient was hydrated. CECT showed dilated bowel loops with 2 strictures in the distal ileum with dilated proximal bowel loops.

Hence proceeded with laparotomy where small bowel of about 30 cm was found entrapped in the post hysterectomy peritoneal defect which was about 50 cm from the ileocecal junction.

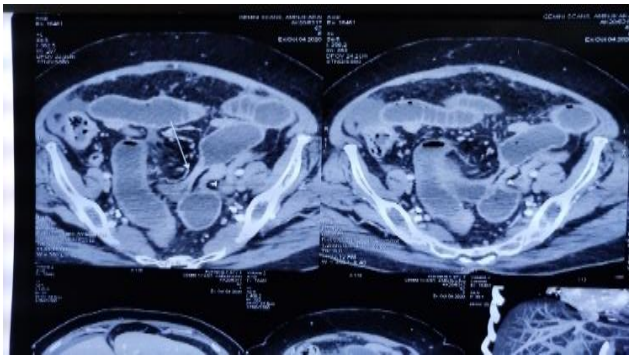

**Figure 1: 2 strictures in the distal ileum with proximal dilated bowel loops.**

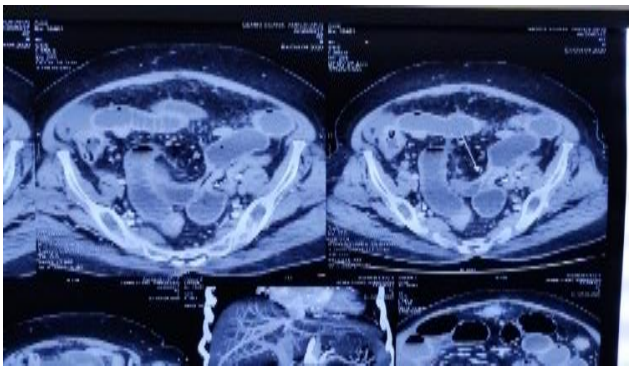

**Figure 2: 2 strictures in the distal ileum with proximal dilated bowel loops.**

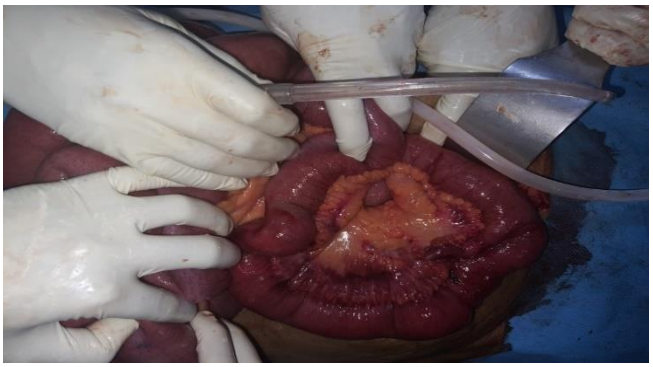

**Figure 3: Intra operative finding of sequestered ileal loops in pre-gangrenous state.**

**Figure 4: Improvement of the same pre gangrenous bowel in terms of colour and sheen.**

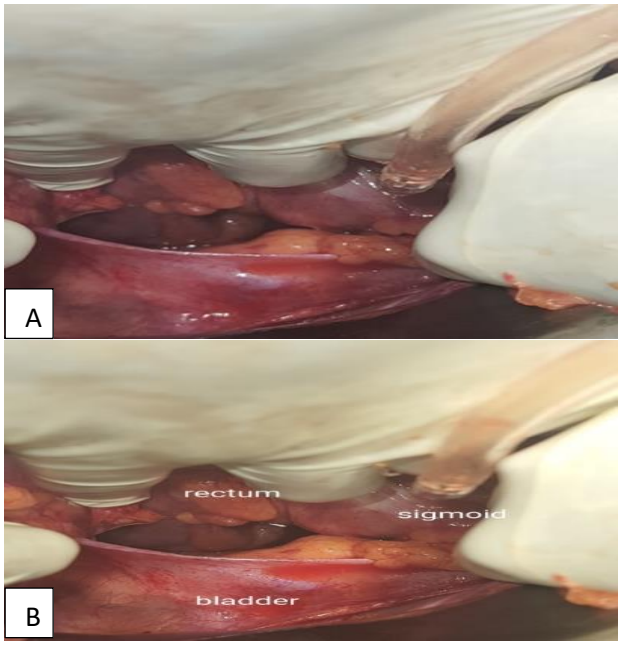


**Figure 5: Intra operative finding of peritoneal defect in the post hysterectomy site.**

The entrapped bowel along with its mesentery was found to be pre gangrenous and congested. Immediately warm saline fomentation was done and 100% oxygen delivered after which improvement in bowel colour, sheen and peristalsis was seen. Perineal musculature was intact and the rent was closed. Post operatively oral feeds was started on the third day and the patient was discharged on the 7$^{th}$ day.

## DISCUSSION

Intestinal obstruction attributable to internal hernia as a cause is a rare phenomenon with reported incidence of 0.6-5.8%.[3] The pouch of Douglas is an anterior peritoneal reflection between uterus and rectum which is so called recto uterine pouch. Multiparity, old age, previous pelvic surgery may lead to weakening or defect of pelvic floor resulting in herniation of bowel through the peritoneal defect in the pouch of Douglas.[4] The incidence of internal hernia occurring in the pelvis is approximately 7% and is anatomically classified into obturator, sciatic and perineal hernias based on the location of defect. [5] Our case is different from other hernia of pouch of Douglas in a way that it was associated only with peritoneal defect in the post hysterectomy site. There was no weakness of the pelvic diaphragm. The peritoneal defect may be created congenitally or due to pelvic surgery/hysterectomy.[6] The investigation done for a suspected case of intestinal obstruction is usually CT scan. CT signs of an internal hernia include evidence of small bowel obstruction along with cluster of collapsed small bowel loops in the peritoneal defect between rectum and the uterine cervix.[7] The treatment of most internal hernias are operative reduction and closure of the defect. The primary aim is prevention of recurrence. It is necessary for all surgeons

to have adequate knowledge of various internal hernias and their anatomy to avoid per operative confusion.[8]

## CONCLUSION

Intestinal obstruction is a common presentation in emergency department which should be managed with initial line of supportive management before considering surgery in order to improve patient outcome. Newer imaging modalities can clinch the diagnosis in more than ninety percentage of cases. Even with all the advanced imaging, there will always be a surprise element while operating small bowel obstruction. This is usually due to the presence of internal hernias. Internal hernias are usually missed by the radiologist due to its diagnostic difficulty and rarity. A thorough knowledge of internal hernia is required by the operating surgeon in such surprising situations. Our case is a very rare hernia with herniation from post hysterectomy defect which was diagnosed intra operatively only.

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