Case Report

A rare case of internal hernia through a rent in Pouch of Douglas, six years after abdominal hysterectomy

Dilip Krishnarao Apturkar*, Kundankumar Narayan Dandekar, Gokul Jayawant Jorwekar, Padmakar Kashinath Baviskar, Khilchand Dilip Bhangale

Department of Surgery Rural Medical College, Loni Pravara Institute of Medical Sciences Deemed University. India

*Correspondence Info:
Dr. Dilip Krishnarao Apturkar
Associate Professor
Department Of Surgery
Rural Medical College, Loni
Pravara Institute of Medical Sciences Deemed University. India.
E-mail: drdilipapturkar@gmail.com

Abstract

Introduction: Internal hernia presenting with intestinal obstruction is a rare entity with reported incidence of 0.6% to 5.8% only. The present case is of internal herniation through a peritoneal rent in the Pouch of Douglas, occurring six years after abdominal hysterectomy. Till date only 4 cases of hernia through a rent in pouch of Douglas are reported.

Objective: Presenting here a case of internal hernia which was treated successfully

Conclusion: Internal hernia occurring through peritoneal rent in Pouch of Douglas and presenting with intestinal obstruction six years after abdominal hysterectomy is rarest of its kind.

Keywords: Internal hernia, rent in Pouch of Douglas

1. Introduction

Internal hernia presenting with intestinal obstruction is a rare entity with reported incidence of 0.6% to 5.8% only.\textsuperscript{1}  
In a series of 11,270 patients with intestinal obstructions, 94 patients had internal hernia as cause (0.8%).\textsuperscript{2}

Rockintansky (1836) and Loebl (1844) described internal herniation through a defect near ileocecal junction and transverse mesocolon respectively at autopsy. Turrel (1932) described herniation through sigmoid mesocolon.\textsuperscript{2}

Internal hernia within the pelvis accounts for only\textsuperscript{3} 7%. They are mostly attributed to defect in broad ligament. Perineal herniae are also called pelvic hernias, subpubic hernias, hernias of the pouch of Douglas, and vaginal hernias. Scarpa in 1821 first reported a case, but de Garengeot is supposed to have seen one in 1731.\textsuperscript{4} A perineal hernia is the protrusion of the viscus through the pelvic floor (pelvic diaphragm) into the perineum. A hernia sac present. Primary perineal hernias are spontaneously occurring hernias. A secondary or post operative hernia may occur following extensive pelvic surgery usually within a year.\textsuperscript{4} They are described as anterior and posterior in relation to the superficial transverse perineus muscle. Hernias of pouch of Douglas belongs to the posterior perineal hernia. The present case of herniation through a peritoneal defect in the Pouch of Douglas, occurring six years after abdominal hysterectomy is extremely rare. Till date only 4 cases of hernia through a defect in pouch of Douglas are reported in literature with only one case presenting post hysterectomy.

Preoperative diagnosis of internal hernia causing intestinal obstruction is often difficult. Hence delay in diagnosis may result in strangulation of bowel and a lethal condition.

We present a case of internal hernia occurring through the peritoneal defect in Pouch of Douglas six year after...
abdominal hysterectomy. Patient presented with intestinal obstruction complicated with gangrene and perforation of ileum. She was treated successfully with resection of gangrenous ileum followed by end to end anastomosis and closure of peritoneal defect.

2. Case Report

A 50 years old female, presented as surgical emergency with complaints of distension of abdomen since 4 days and vomiting many times since two days. History of initial acute attack of intermittent and colicky pain followed by gradual distension. Patient had undergone abdominal hysterectomy 6 years back. Patient was admitted in Intensive care Unit as her initial renal functions were deranged (Serum Urea 140 mg/dl, Serum Creatinine 4.6mg/dl, Serum Na+ 132 mEq/L and Serum K+ 4.4 mEq/L). Patient responded well to initial conservative treatment with nasogastric decompression and intravenous fluids. Her abdominal distension was relieved significantly and renal functions came to normal in next two days. From admission to next five days patient’s abdomen remained without distension but did not pass flatus or stools.

On 6th day of admission patient complained of acute pain along with distension in lower abdomen. On palpation tenderness and rigidity was minimum but x ray erect abdomen revealed 3 to 4 air fluid levels and air under diaphragm. (Figure1). Patient was explored through vertical infraumbilical midline incision through previous scar. A loop of terminal ileum approximately 12 inches proximal to ileoceacal junction was found herniated through a rent in Pouch of Douglas. Dilatation of ileal loop with perforation proximal to herniated loop was present. The herniated loop was pulled gently which showed gangrene and sloughing following strangulation. The defect was 2 cm in size and did not communicate either to vagina or rectum as confirmed by bimanual examination. The defect was closed keeping tube drain in cavity. Gangrenous ileal loop was resected followed by end to end ileo-ileal anastomosis. After thorough lavage and inspection the abdomen was closed keeping additional pelvic drain. The postoperative period was uneventful. Sutures were removed on 10th day and patient was discharged. Patient is doing well on follow up visit after two months.

3. Discussion

Only 4 cases of internal hernia through Pouch of Douglas were found on internet and Pubmed search. Inoue et al1 reported a similar case where the patient’s peritoneal defect was derived from previous hysterectomy. This is extremely rare condition.

In other 3 cases the etiology for internal intestinal herniation was considered as either congenital (2 cases) or undetermined (1 case). 3 In our case patient presented 6 years after her abdominal hysterectomy. The previous history of pelvic surgery favored the possibility of postoperative adhesions causing intestinal obstruction, thus making diagnosis of internal hernia difficult.

“It is a truism that so long as a mechanical small bowel obstruction is complete, the presence or absence of strangulation cannot be excluded with certainty until the abdomen is opened”. 5

The present case is different from perineal hernia as it is having small defect with no weakening or attenuation of the pelvic
Secondary perineal hernias mostly present themselves within a year of operation. They usually follow major pelvic surgery after removal of pelvic organs and adjacent portion of the pelvic floor. Further if a loop of small intestine cannot reach the perineum, it is unlikely that it will become incarcerated in a perineal hernia.

Posterior internal supravesical hernia in retrovesical space can occur through rectovesical or vesicovaginal path in female. They form a small group of distinct supravesical hernias.

Herniation of the Pouch of Douglas along with loops of bowel when occurs into the upper posterior wall of vagina is known as enterocele. It is true hernia of peritoneal pouch. It is commonly associated with gynecological condition like uterovaginal prolapse and vaginal hysterectomy. There is no defect in peritoneum. There are no specific symptoms attributed to enterocele.

**Figure 3 Rent in Pouch of Douglas**

**Figure 4. Gangrened loop of ileum**

4. Conclusion

Internal hernia occurring through peritoneal defect in Pouch of Douglas and presenting with intestinal obstruction six years after abdominal hysterectomy is rarest of its kind.

References

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