Rare cause of intestinal obstruction – Vaginal enterocele

Dharmendra Mehta · Deval · Shaam M. B. · J. K. Yadav

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Abstract In surgical emergency admissions, acute abdomen with intestinal obstruction is very common problem. Many causes of intestinal obstruction are there but most common once are postoperative bands and adhesions, hernias, tumors and congenital bands. Here we report very rare and unusual cause of acute abdomen with intestinal obstruction in a non hysterectomized 78-year-old female having pelvic herniation i.e. anterior and posterior vaginal enterocele, in which loop of intestine got entrapped, strangulated and became gangrenous. Exploratory laparotomy was performed and resection anastomosis of small bowel was done with obliteration of pouch of Douglas (Recto-uterine space) and utero-vesicle space.

Keywords Acute abdomen · Intestinal obstruction · Vaginal enterocele · Strangulation · Gangrene · Cystocele · Rectocele · Pelvic floor · Recto uterine space (Pouch of Douglas) · Utero vesicle space

Introduction

In ageing women, prolapse of uterus with or without cystocele or rectocele is a common finding seen but patients having very large anterior and posterior vaginal enterocele without uterine prolapse or without history of hysterectomy is uncommon and rare finding. Cystocele, rectocele, uterine prolapse and enterocele occur because of weakness or defect in pelvic floor mainly postpartum or after pelvic surgeries.

Case report

seventy-eight years female admitted with difficulty in micturition 15 years, some thing coming out per vagina 15 years, pain and distention of abdomen, vomiting, fever for -25 days, more so for 5–6 days and not passed motion 20 days. She was treated else where conser -vatively. On admission her G. C. was poor, febrile, dehydrated, anemic, pulse 104/min and BP 100/70 mm, chest, cardio vascular system, central nervous system normal. Per abdominal examination revealed gross distention of abdomen, tenderness, guarding, rigidity all over abdomen and bowel sounds were absent. Perineal examination - large anterior enterocele (preoperatively misdiagnosed by gynaecologists as cystocele) and posterior enterocele (Fig. 1) which were not reducible, while per vaginally swelling was very tender and per rectally anterior bouginess was present.

Her Hb was 11.6 g%, WBC 20,800 /cmm, polymorph-84, blood urea 92 mgm%, serum creatinine 1.68 mgm%, serum protein 5.67 g%, albumin 3.1 g%, globulin 3.57 g%, A:G ratio 1: 1.2, serum electrolytes Na⁺ 123 mEq/L., K⁺ 2.7 mEq/L, while ECG showed sinus tachycardia with rate-related non-specific ST-T wave changes. X-ray abdomen showing multiple air fluid levels. (Fig. 2).

D. Mehta¹ · Deval² · Shaam M. B.³ · J. K. Yadav¹

¹Department of Surgery,

²Department of Obstetrics and Gynaecology,
Shri Aurobindo Institute of Medical Sciences,
Indore, India

³Department of Surgery,
MGM Medical College, Indore, India

D. Mehta (✉)

E-mail: dymehta@gmail.com

Fig. 1 Female perineal examination - showing anterior and posterior vaginal enterocele

Fig. 2 X-ray abdomen standing view with both domes of diaphragm

USG abdomen - multiple prominent bowel loops seen with no peristalsis. Lot of free fluid in pelvic cavity and bilateral paracolic gutters. Diagnosed as perforation peritonitis. Fluid C and S - *Klebsiella pneumoniae* grown sensitive to aminoglycosides, meropenam, cefotaxim + salbactam. Foleys catheterization did not reduce size of anterior swelling. After resuscitation, fluid and electrolyte correction, she was subjected to laparotomy. Three liters of foul smelling intestinal fluid was drained. Eighteen inches small bowel loop sitting on the uterus was gangrenous, friable, could be delivered with lot of difficulty from pelvic region, anterior and posterior to uterus. All organs were matted together in the pelvis. Resection and end-to-end ileoileal anastomosis was performed 2 feet proximal to ileocaecal junction with obliteration of pouch of Douglas (Recto uterine space) and utero-vesical space.

Discussion

The ageing of population has resulted in a greater number of women presenting with symptomatic vaginal vault prolapse, perineal herniation. Care must be taken not to confuse vault prolapse with an anterior vaginal prolapse, i.e., cystocele, cystourethrocele, or posterior prolapse i.e. rectocele. An enterocele is herniation of the small intestine into the vagina,

first described in 1736. Vaginal vault prolapse frequently occurs concomitantly with posterior vaginal enterocele [1], it is result of tearing of uterosacral ligaments off the vaginal cuff in woman who has previously undergone hysterectomy. It has also been found that loss of the upper suspensory fibers of the paracolpium and parametrium lead to uterine prolapse and vaginal prolapse after hysterectomy [2], while in non-hysterectomised women, stretching of uterosacral ligaments due to inherent connective tissue weakness leads to the same. Transverse or longitudinal tear in fascia at the vaginal apex can lead to development of vault prolapse. In enterocele parietal peritoneum comes in direct contact with the vaginal epithelium with no intervening fascia [3] and some times uterine prolapse is associated with enterocele and when it is seen after hysterectomy known as pulsion enterocele [4]. There are cases of enterocele with evisceration of small bowel either spontaneously due to pressure necrosis of vaginal vault or post coital rupture have been reported [5] but there are very few cases in the literature having anterior enterocele anterior to uterus through vesico uterine pouch have been documented. In a series of 490 cases of prolapse, 193 cases were enterocele of which only 3 cases of anterior enterocele were reported [6]. Number of cases of small bowel obstruction associated with post-hysterectomy vault prolapse or evisceration reported in the literature but this case is of rarity in itself, that there is no history of hysterectomy and having enterocele of rare anterior and posterior variety with obstruction and strangulation of loop of small bowel, gangrene, and perforation peritonitis. In literature number of cases of enterocele with evisceration with obstruction, with or without gangrene have been reported [5] but with out evisceration gangrene of small bowel in anterior and posterior enterocele has not been documented so far. These patients have stress incontinence or dyspareunia, constipation, features of intestinal obstruction etc. They may require defecography, cystoproctography, [7] MRI [8] etc., to confirm clinical diagnosis. The main treatment is to reduce the enterocele, if bowel vascularity is compromised needs resection and anastomosis with vault suspension and plication of pouch. Different approaches have been described for colporrhaphy (obliteration of Cul-de-sac)—a) trans-abdominal [5, 9] b) trans-vaginal [2, 3, 5, 8, 9] c) Laparoscopic [3]. In all approaches, it has been emphasized on colporrhaphy to prevent recurrence and also emphasized on proper repair of pelvic fascia during any vaginal or pelvic surgeries [3, 8] In this case we did obliteration of cul-de-sac after resection and end-to-end anastomosis.

Conclusion

In old frail women we do come across uterine prolapse, vaginal vault prolapse, cystocele, rectocele and combination of two or more frequently. We also come across patients having small bowel herniation into pelvic floor usually

through posterior vagina called as posterior enterocele or in post hysterectomised patients we can see patients having pulsion enterocele (Posterior enterocele) but small bowel herniation in to pelvic floor through anterior vagina called as anterior enterocele is very rare and having anterior and posterior enterocele together in same patient is extremely rare variety of pelvic floor herniation that too in non-hysterectomised patient. All such patients of pelvic floor herniation require at first reduction of herniation, release of obstruction but most importantly they require pelvic floor repair along with obliteration of cul-de-sac or some times colpocleisis (obliteration of vagina) is done to avoid recurrence.

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