CASE REPORT

Transmigration of an intrauterine device into sigmoid colon-surgical management: A case report

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Abstract

We present the case of a 30 years old woman who had an Interauterine Device placed in a fragile uterus (puerperal period) 5 years ago and presented with dull abdominal pain and disturbed bowel habits. Failure to pull out IUD strings on gynecological examination made us suspicious of translocated IUD and its ectopic placement in sigmoid colon was confirmed on colonoscopy and a CT abdomen with contrast. The transmigrated IUD was removed following laparotomy.

Keywords: Intrauterine device, Sigmoid colon, Case report.

Introduction

Intrauterine contraceptive devices are frequently used reliable methods of birth control with an incidence of 16.5% in developing and 9.4% in the developed nations[1]. An infrequent but serious consequence of intrauterine device (IUD) insertion is iatrogenic or secondary erosion of the uterine wall complicating 1.3 per 1000 cases[2], which could rarely herald translocation of IUD into the abdominopelvic viscera [3] with potential morbidities of adhesions, fistula formation and/bowel perforation[4]. A history of unexplained lower abdominal pain and absence of IUD strings on per speculum exam should make a clinician suspicious of a migrated IUD, thereby requiring surgical or laparoscopic intervention Herein, we present a rare case of ectopic IUD in sigmoid colon which was surgically removed.

Case Report

A 30 years old woman (para=3) presented to us in September, 2017 with complaints of on and off,dull ache in lower abdomen and altered bowel habits for one year. Patient had an intrauterine contraceptive device (Copper 380 AT) placed, five years ago in puerperium following her third spontaneous vaginal delivery and did not come for IUD follow up. Patient had no history of vaginal discharge, menstrual irregularities, burning micturition or weight loss. General physical examination was insignificant. Abdominal examination revealed mild tenderness, more pronounced in hypogastria and left iliac fosse with audible bowel sounds. A digital rectal exam was unremarkable. On per speculum examination, threads of IUD were seen but attempt to pull them out with forceps was unsuccessful and distressing for the patient. On bimanual exam, uterus was retroverted and part of IUD was palpable in rectouterine pouch. All the baseline investigations including ESR werein normal range. Patient was managed conservatively with empirical antibiotic therapyin liaison with physician and gynaecologists. A plain erect radiograph abdomen showed IUD in situ (Figure: 01; Upper right image) while transvaginal ultrasound showed one horizontal arm of IUD eroding

IUD : Intrauterine device.

Figure-1: (Upper Left image: shows colonoscopic view of stem of IUD in the lumen of sigmoid colon), (Upper right image: shows an IUD in pelvis in an X ray abdomen erect film), (Bottom image: CT abdomen and pelvis with contrast showing transmigrated stem of IUD).

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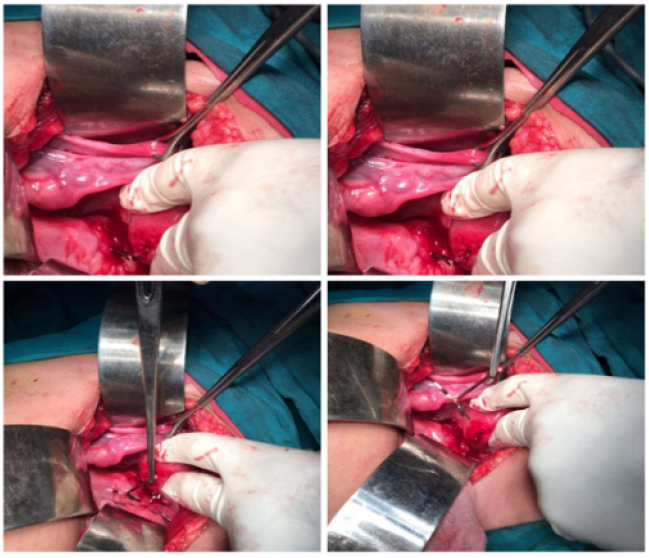

Figure-2: Surgical removal of transmigrated intrauterine device from sigmoid colon

the uterine wall. Colonoscopy revealed a metallic body piercing the colonic wall (Figure-1; Upper left image), about 15 cm from the anal verge. A contrast enhanced CT abdomen and pelvis showed an extra uterine location of one of the horizontal arms of IUD in sigmoid colon (Figure-1; bottom image). An elective laparotomy for surgical retrieval of IUD was planned. Intra operative findings were significant for adhesions and small amount of reactionary fluid in the posterior cull de sac with one of the horizontal arms of IUD embedded in the wall of sigmoid colon (Figure-2). Following adhesiolysis, IUD was removed and a primary repair of colonic perforation was done and biopsy sent for histopathology. The gynaecological consultation was taken per operatively and patient had primary repair of uterine perforation. Patient was admitted in high dependency unit postoperatively and had an uneventful recovery. Histopathology of colonic biopsy was positive for evidence of chronic inflammation at embedding site of IUD. Patient was discharged on fourth postoperative day and remained healthy on follow ups at 15 days and 2nd month time.

Discussion

One of the potential complications of IUD insertion is uterine perforation either primarily at time of placement or secondarily, later on when uterine contractions embed IUD in uterine wall favouring its migration into abdominopelvic organs in 15% of the cases[5] including appendix, small bowel, rectum, sigmoid or bladder[6]. The risk factors predisposing transmigration of intrauterine device include: inadequacy of clinician's skills, history of abortion, retroverted uterine axis, insertion in puerperium period and congenital uterine anomalies[7]. Such ectopic intrauterine devices confer potentially serious consequences including volvulus, fistula formation, bowel obstruction, bowel perforation and peritoneal adhesions[4]. The symptoms and signs of transmigrated IUD encompass undesired conception, chronic lower abdominal pain, burning micturition[6], vaginal discharge, clinical spectra of peritonitis and missing IUD strings on per speculum vaginal examination .In our case, altered bowel habits, chronic pelvic pain and inability to pull out IUD strings were suggestive of bowel injury caused by IUD and insertion in puerperium, retroverted uterine axis and inadequate IUD follow up were the predisposing risk factors. The copper containing IUDs are radiopaque on plain X ray film of abdomen[8]. On ultrasonography of abdomen, levonorgestrel releasing intrauterine devices are not seen as they contain barium sulphate in them while the copper containing intrauterine devices give hypoechoic impression[7]. A contrast enhanced computed tomography of abdomen should be the investigation of choice to determine the accurate locationand accompanying complications of translocated intrauterine devices in abdomen[9].

It is preferable to remove misplaced IUDs by minimally invasive procedures i.e. hysteroscopy, cystoscopy or colonoscopy depending upon the location of ectopic intrauterine device. Among the cases of misplaced intrauterine devices reported so far in literature,93% were retrieved by minimally invasive techniques while in 57% of cases of translocated IUDs with abdominal viscera perforation, open surgical procedures were opted[10]. In this stated case, colonoscopic removal was not done to defy the risk of peritoneal leak precipitated by traumatic removal and a laparoscopic removal was not done owing to the dense granulation tissue obliterating the posterior cul de sac. For these aforementioned reasons, an elective laparotomy was done to retrieve the transmigrated copper containing IUD.

Conclusion

Transmigration of intrauterine devices to abdominopelvic viscera is rare. A history of chronic pelvic pain with altered bowel habits and failure of retrieving intrauterine device by pulling out its strings should alert clinicians of colonic

embedment of IUD and an open surgical approach should be preferred in cases of full thickness colonic perforation by misplaced IUD.

Disclaimer: Informed and written consent was taken from the patient.

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