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Case Report

Migration of intra caesarean intrauterine device to sigmoid colon: a case report

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ABSTRACT

Post-partum intrauterine contraceptive device inserted during caesarean section provides long acting reversible contraception to women soon after birth. It is now well accepted for its safety and efficacy. Uterine perforation, which is one of the most serious complication of PPIUCD has rarely been reported following intracaesarean insertion. The thick uterine wall and placement under direct vision helps prevent perforation. However, migration of IUCD to peritoneal cavity, causing perforation of several adjacent organs can occur due to improper closure of the uterine incision. Migration to sigmoid colon is an extremely rare complication. Authors present the case of a 29-year-old woman who had a Cu T 380 A insertion during Caesarean section. After 12 months of insertion, the patient suffered abdominal pain gradually increasing in intensity and frequent episodes of bleeding per rectum. Laparoscopic exploration revealed IUCD perforating the sigmoid colon completely and adhesions of bowel loops to the sigmoid colon. Extraction using laparoscopic method by gently pulling the threads was unsuccessful and the patient was managed by laparotomy.

Keywords: Laparoscopy, Laparotomy, Migrated intrauterine contraceptive device, Postpartum intrauterine contraceptive device, Sigmoid perforation

INTRODUCTION

There are limited options of contraceptive choices in immediate post-partum period, especially following caesarean section when spacing is of extreme importance. In India about 27% of births occur in less than 24 month after previous delivery.[1] Intracesarean IUD insertion provides a highly effective, reversible and long acting contraceptive choice for women undergoing caesarean section.[2] The efficacy of intracesarean IUD insertion , without infectious morbidity have been established by various studies.[3,4] Common complications encountered with postpartum IUCD's are missing thread, heavy menstrual bleeding, dysmenorrhoea, expulsion and perforation of uterus. Perforation of uterus is extremely rare in intracaesarean insertion due to the thick uterine wall and insertion under direct vision. Migration of Intrauterine device to peritoneal cavity and perforation of adjacent organs can occur during involution, if the uterine incision is not sutured properly. Migration to the gastrointestinal tract is rare, but if it occurs is a serious complication.[5]

So far, no case of IUCD, migrating to sigmoid colon following intra caesarean PPIUCD insertion has been reported. This case report is presented in view of its rare nature and also to stress the importance of proper two-layer closure of uterine incision in Caesarean Sections to decrease postoperative complications and morbidity.

Treatment for retrieval of migrated Cu-T to bowel are best done through Minimal invasive methods like

laproscopy, colonoscopy or by laparotomy depending on expertise, facilities and location of IUD.

CASE REPORT

A 29-year-old woman (Para-2, Live-2, Previous 2 LSCS) presented in OPD with complaints of pain lower abdomen, for 2 months and 3-4 episodes of blood mixed stools. Her pain was intermittent, colicky to begin with but became progressive and continuous. She gave history of being delivered by Caesarean Section 14 months back for short inter conception period. She had opted for CuT 380 intracaesarean as a long acting contraceptive method. Her last menstrual period was a week prior to presentation. There were no complaints of burning micturition or any discharge per vaginum. She denied any post medical or surgical intervention apart from taking prescription medicine for pain.

On physical examination, the patient was normotensive (BP 120/70mmHg) with a normal pulse rate. Her chest examination did not reveal any abnormality. Abdominal examination exhibited normal bowel sounds with diffuse lower abdominal tenderness on deep palpation without rebound, guarding or distention. On per-speculum examination no threads were visible. Cervix was healthy. No abnormal discharge was present. Pervaginal examination revealed a normal sized uterus, mobile, nontender and bilateral fornices were nontender. Per Rectal examination was normal.

Complete blood count, Basic metabolic profile, Urine analysis were all unremarkable and faecal occult blood screen was negative. Ultrasonography of pelvis did not reveal any intra uterine device inside the uterus. CT Scan of the pelvis did not reveal any IUCD inside the uterus. An abdominal X-ray revealed an intrauterine device high up in the abdomen indicating that it was in the peritoneal cavity. (Figure 1).

Figure 1: Plain X-ray abdomen and pelvis showing the displaced IUCD.

The patient was planned for laproscopy. On laparoscopy the uterus was normal in size with no adhesions. Cu-T threads were visible near the sigmoid colon.

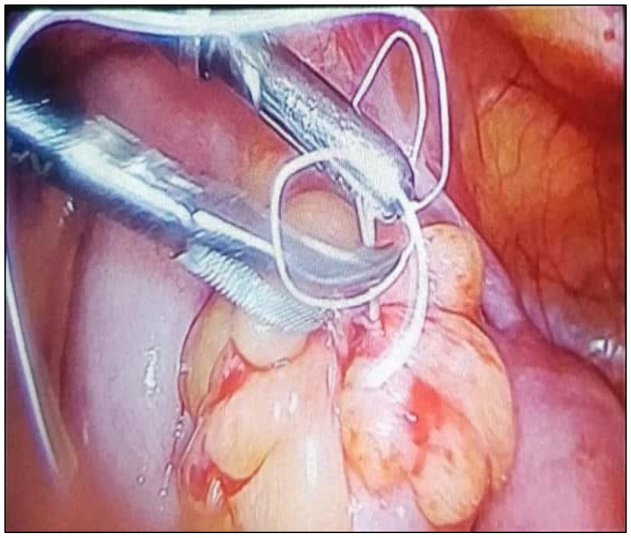

Figure 2: Laparoscopic view IUCD completely perforating the sigmoid colon. only the Cu-T threads are visible.

On gentle traction of the threads, it was noted that the main body of the IUCD was inside the sigmoid colon and adhesions of bowel loops to the sigmoid colon was present. It was not possible to remove the Cu-T laparoscopically even after gentle traction on threads (Figure 2).

Figure 3: Adhesions of bowel loop to sigmoid colon. Cu-T could not be dislodged by traction.

Laparotomy was done. The Cu-T was removed from the colon by making a small enterostomy after stabilising its horizontal limb (Figure 3). As there was no contamination, primary closure of the sigmoid was done. Patient recovered well.

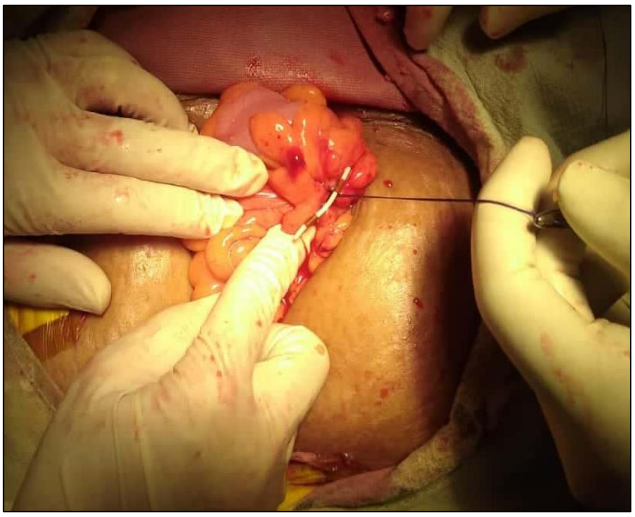

Figure 4: Cu-T removed by laparotomy.

DISCUSSION

Insertion of intrauterine device immediately after delivery is becoming increasingly acceptable because of increased motivation for contraception, does not affect breast feeding and the environment is conducive both for the women and her provider. With increasing caesarean section, intracaesarean insertion of IUD is now an important contraceptive choice for women. The technique of insertion of intracaesarean IUD though simple needs to be done correctly by introducing the IUD through the uterine incision and placing it high at the fundus manually by holding it between the index and middle finger or using a ring forceps. Attempt should not be made to pass the string of IUD through the cervical os before closure of the uterus as this would displace the IUD into the lower uterine segment and may result in expulsion. Closure of the uterine incision should be done in two layers, so that the IUD does not migrate to the peritoneal cavity through a defective scar following the path of least resistance during involution. Although 85% of perforations do not migrate to other organs, the remaining 15% lead to complications in adjacent visceral organs. The most frequent sites of migration are momentum (26.7%), Pouch of Douglas (21.5%), large bowel (10.4 -%), myometrium (7.4%) broad ligament (6.7%).[6] Rare sites are to appendix, abdominal wall, ovary and bladder.[6]

The migrated IUD can cause fibrosis, perforation and obstruction of the small and large bowel, penetration of the mesentry, infarction of bowel, rectal strictures and rectouterine fistula.[7] In unscarred uterus, uterine perforation is one of the most serious complicaion with an incidence of 1.3 and 1.6/1000 insertion.[8] Perforation following intracesarean insertion of IUD is exremely rare because of the thick uterine wall and high fundal placement under direct vision. Most patients with uterine perforation and IUD migration present with abdominal pain, diarrhoea and fever, however 30% of patients are asymptomatic.[9] In intra caesarean insertion, threads are not outside the cervical os at the time of insertion, they become visible as the uterus involutes and are seen in most cases at their first visit; however, in a few cases threads may get curled up and may not be seen. Missing strings may also indicate expulsion, mal positioning or perforation. Hence ultrasound should be done periodically in all cases of missing threads. Missing threads are present in up to 30% of cases in intracesarean group due to coiling of threads in the cavity of uterus according to Haldar et al.[10]

When patients are symptomatic, a pelvic examination should be done to assess the threads of CU-T or string location. If unsuccessful, ultrasound or plain abdominal radiographic imaging should be done to locate the IUD. Once IUD migration has been confirmed by lack of IUD in the uterus and a high placement of IUD in X-ray, cross sectional imaging such as CT scans or magnetic resonance imaging is suggested to rule out adjacent organ involvement before considering surgical removal. If colonic involvement is suspected, colonoscopy can be used to confirm the diagnosis before operative intervention.

Management of migrated IUD in an asymptomatic patient is controversial, but experts suggest that all extra uterine devices should be removed irrespective of the location and type of IUD.[11]

Retrieval of misplaced IUD can be done by laparoscopy or laparotomy. Laparotomy is necessary if the device is embedded in the viscera or bound by adhesions.[6-8] Retrieval of an IUD with colonoscopy, when IUD is embedded in the colonic wall and surrounded by granulation tissue was not appropriate in this case as the intervention could cause colonic defect with intra-abdominal leakage of colonic content.[8]

In this case the migration of the IUD into the peritoneal cavity would have occurred through the uterine incision due to improper closure of the incision at LSCS. The probable reason could be that the entire thickness of the uterine musculature may not have been included resulting in weakness of suture site and subsequent migration of IUD. Double layer suturing of uterus involving the entire thickness of the uterine wall would be a better method than single layer closure to prevent such complications.

CONCLUSION

Operative deliveries are increasing. Intra caesarean IUD insertion is now being increasingly accepted as a long acting contraception following caesarean section. Proper method of insertion and proper closure of uterus in two layers will prevent migration or perforation of IUD through a weak scar. This will prevent the morbidity caused by perforation to adjacent organs. Follow up examination at 6 weeks then at 6 monthly intervals is important to prevent the delayed diagnosis and morbidity associated with IUD migration. Patients should be

educated about the possibility of migration and importance of regular self-examination for missing threads or strings. Periodic follow-up ultrasound should be done in cases of missing threads to ensure that the IUD is not displaced.

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