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CASE REPORT

A Case Report of Two Unusual Complications Following Intracesarean Insertion of IUD

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ABSTRACT

Today almost 153 million women of reproductive age group use the IUD worldwide as method of contraception. Migration of IUD into peritoneal cavity through perforation of uterus, though rare is a serious complication, which can present as a gynecological emergency. Skillful insertion of IUD is important to avoid complications. We report a case of postsurgical hematometra with misplaced IUD following intracesarean insertion, which was managed by laparotomy and retrieval of IUD.

***Keywords:** Misplaced IUD, parametrium, postsurgical hematometra, reversible contraception, post placental insertion.*

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INTRODUCTION

Intracesarean IUD insertion extends the benefit of long acting reversible contraception to women undergoing operative delivery.[1] Intracesarean IUD has well documented safety reports. Post placental placements of IUD during cesarean delivery are associated with lower expulsion rates than post placental vaginal insertion, without any increasing rates of post-operative complications.[2] Common complications encountered with IUD insertion are a missing thread, dysmenorrhea, heavy menstrual bleeding, pelvic infections, expulsion and perforation of uterus. Probably the most severe complication of IUD is uterine perforation and is common among women with lost IUD's. The most frequent sites of migration are omentum (26.7%), pouch of Douglas (21.5%), large bowel (10.4%), myometrium (7.4%), broad ligament (6.7%), free within the abdomen (5.2%), adhesion to ileal loop serosa (4.4%) or to large bowel serosa (3.7%) and mesentery (3%)[3]. Rare sites are appendix, abdominal wall, ovary and bladder.[3]

Hematometra is the collection of menstrual blood inside the uterine cavity due to an obstructed outflow tract generally due to a congenital cause. But now in the present era, there is a rise in the incidence of postsurgical hematometra following cesarean section, post endometrial ablation procedures and postabortal procedures.

So far, no case of misplaced IUD following intracesarean insertion has been reported. We report a case of misplaced IUD following intracesarean insertion, who also developed postsurgical hematometra. This case report is presented in view of its rarity and also to stress the need for adequate

training of health providers to decrease post-operative complication, thereby decreasing morbidity and mortality.

CASE HISTORY

22 years old P2 L2 with previous two LSCS in lactational amenorrhea presented to our OBG casualty with acute lower abdominal pain since 3 days. She gave history of cyclical abdominal pain for the past 2 months. The second cesarean section was done as an emergency procedure as the patient went into labour and the baby is an MR child. The patient had consulted a gynecologist 6 months back, when she passed the thread of IUD per vagina. USG and CT – Abdomen and Pelvis were done,which revealed migration of IUD into the left parametrium close to left external iliac vessel. Laparoscopy for removal of IUD was attempted, but it could not be traced,so the procedure was abandoned. Two months later she underwent laparotomy at another hospital, but again IUD could not be retrieved even after localizing it with C-arm, as it was deeply embedded in the left parametrium.

Post-operatively patient was comfortable for 2 months and then she developed cyclical abdominal pain with which she came to our hospital. Pelvic examination revealed an enlarged uterus of 16 weeks size with restricted mobility and tenderness in all fornices. USG done at admission revealed hematometra of ~50cc.

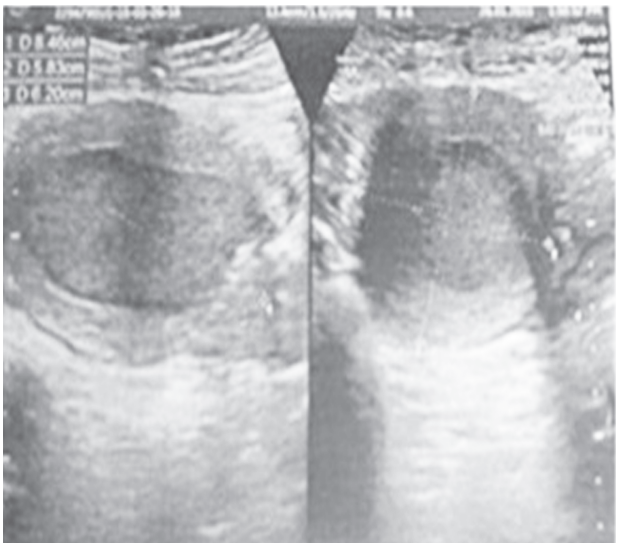

Figure 1 Ultrasound picture showing echogenic fluid in the Endometrial Cavity

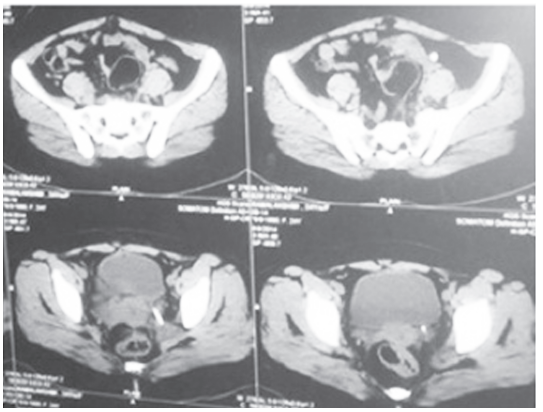

Figure 2 CT Abdomen and Pelvis showing displaced IUD in Left Parametrium

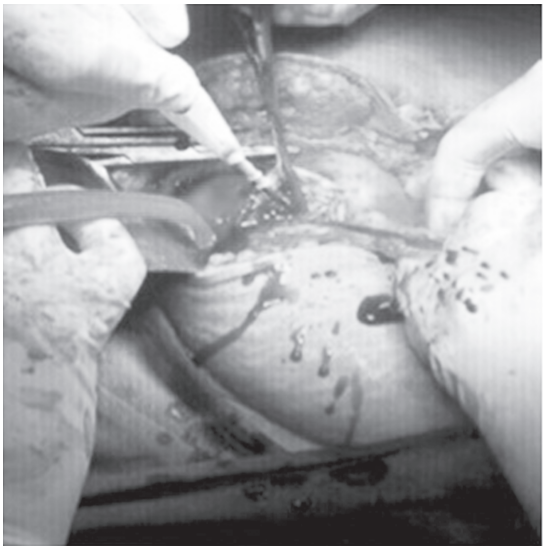

Figure 3 Evacuation of Hematometra through Hysterotomy

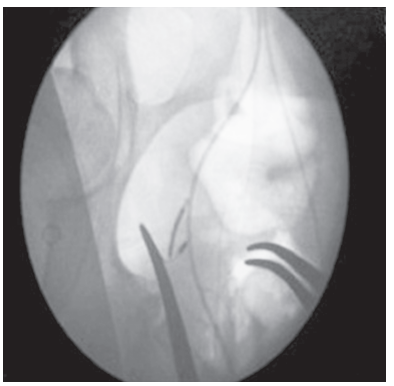

Figure 4 C-arm image localizing the IUD in the left parametrium

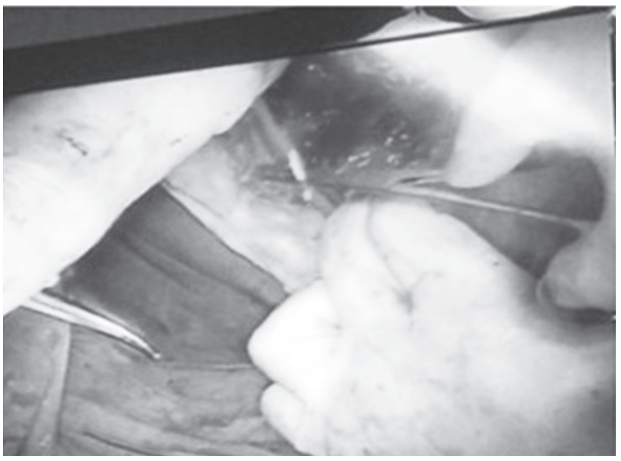

Figure 5 Image showing laparotomy and retrieval of IUD

A diagnosis of post-surgical hematometra with misplaced IUD was made and patient was posted for Laparotomy with evacuation of hematometra. During the procedure, cervical dilatation was tried but the dilator could not be passed beyond the internal os, hence the hematometra could not be evacuated. So, it was decided to proceed with Laparotomy. Hysterotomy with evacuation of 50 to 60ml of hemotometra was done. Internal-os could not be localized even through the hysterotomy incision, as there was no communication between the uterine cavity and cervix probably due to inappropriate closure of uterine incision during LSCS. Reconstruction of the communication could not be done because of the thick intervening septum created iatrogenically and thinned out posterior wall of uterus. Hence, hysterectomy was done after stenting the left ureter because of the dense adhesion in the left parametrium caused by misplaced CU-T. Under C- arm guidance IUD was traced and retrieved with great difficulty. Postoperative period uneventful.

DISCUSSION

Intrauterine contraceptive device has been a part of the national family planning programme since the sixties. Immediate post partum insertion of IUD's appeared safe and effective, though comparison with other time insertions is limited.[4] Advantages of immediate postpartum insertion include high motivation, assurance that the women is not pregnant and convenience.[4] The PPIUCD can be placed within 10 minutes of expulsion of placenta following a vaginal delivery (post placental), during cesarean section before closing uterine incision (intracesarean) or within 48 hours following child birth.

The technique of insertion of intracesarean IUD is very simple. It is introduced through the uterine incision and placed at the uterine fundus manually or using a ring forcep. It is important not to attempt to pass the string of the IUD through the cervical os before closure of the uterus as this will displace IUD into the lower uterine segment and may in result in expulsion.

The reported incidence of perforated IUD is 0.87 per 1000 insertion.[5] It is speculated that most perforations occur at the time of insertion, although some have proposed that perforations can arise secondarily as well. The factors associated with uterine perforation are the timing of insertion in relation to termination of pregnancy, the position and anatomy of uterus, the insertion technique and the experience of the person inserting IUD[6]. No significant difference was found between rates of perforation when different types of IUD's were compared[7]. After perforating the uterus IUD can migrate to colon, appendix,wall of iliac vessels, bladder, omentum, perirectal fat, retroperitoneal space, pouch of Douglas and ovaries.[8-11] Most perforations are uncomplicated. Uterine perforations most often are asymptomatic, therefore unrecognized at time of insertion and may not be recognized until years later. It is first suspected when the woman experiences unintended pregnancy or goes for removal of the IUD, and the strings cannot be located. 85% of perforations do not affect other organs, but the remaining 15% lead to complications in the adjacent visceral organs usually the intestines.[12] To prevent the delayed diagnosis and morbidity the patients with IUD should be alerted about the possibility of its migration and importance of regular self-examination for missing threads that is useful for early detection of migration of intrauterine devices.

Computerized tomography (CT) Scan, Pelvis X–Ray, Hysteroscopy, Laparoscopy and Colonoscopy are other diagnostic methods that may assist in proper diagnosis.[13] It has been suggested that an IUD located in the abdominal cavity should be removed even in asymptomatic patients because of risk of adhesion formation and damage to the surrounding structures.[14] Copper containing IUD has been shown to cause considerable tissue response when present in peritoneal cavity as seen in our case. Even WHO advises removal of all migrated devices, even in asymptomatic patients, because of medico legal implications. However management is still debated, some authors still feel that surgical removal is not necessary in asymptomatic patients.[15] The accepted method of treatment of a perforated IUD is surgical removal by laparoscopic

approach. Laparotomy is necessary if the device is embedded in the viscera or bound by adhesion. In our patient it was removed by laparotomy as it was located deep in the parametrium and also because we anticipated adhesion caused by the failed previous procedures.

There are no reported cases of uterine perforation while placing the PPIUCD in any of the studies reviewed. However, if it occurs, the basic steps of managing a uterine perforation are the same as that of regular IUD insertion.

In our case the migration of the IUD into the peritoneal cavity would have occured through the uterine incision, as no other site of perforation of uterus could be identified. The IUD would have migrated most probably during the immediate post partum period. Both the complications hemotometra and migration of IUD in our case may have resulted from improper closure of the uterine incision at LSCS. Most probably the entire thickness of the uterine musculature has not been included resulting in weakness at the suture site with subsequent migration of IUD, and the posterior wall of uterus has been included in sutures along the entire length of uterine incision resulting in hematometra. Though there are no strict guidelines for the use of particular type of suturing technique, double-layer closure involving the entire thickness of the uterine wall has a better strength than single layer closure.

CONCLUSION

There is an increasing rate of operative delivery in developing countries, but there is less number of trained doctors to perform emergency surgeries especially in the periphery, leading to increased incidence of post-operative complication. Adequate training of health professional is essential to increase the acceptance of family welfare services, to break the myths associated with IUD in the community and to lower incidence of complications.

Consent of patient: Obtained

Conflict of interest: None

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