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CASE REPORT

A Rare Case of Perforation Following PPIUCD Insertion

Vineeta Gupta[1] · **Nidhi Kumari**[1] · **Divya Goswami**[1] · **Prachi Maheshwari**[1]

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About the Author

Vineeta Gupta is a Professor and Head of the Department of Obstetrics & Gynaecology. She is a life member of FOGSI, having over 50 publications in various national and international journals and 45 paper presentations/guest lectures to her credit. She has won the best poster and paper awards 4 times in the All India conference of Obstetrics and Gynaecology. She has also received the prestigious Yuva Fogsi Oration award of North Zone in 2004. She has always been closely associated with community health services, health camps and health projects.

Introduction

IUCD is a safe and an effective reversible and reliable method of long-term contraception. Uterine perforation is rare but a potentially serious complication with an incidence of less than one case per 1000 insertion and can cause severe morbidity [1].

The risk factors for uterine perforation are the type of IUD used, position and size of the uterus, congenital anomalies, infection, history of abortion, and insertion of IUD in the postpartum period due to the thinness of uterine wall.

In recent years, there has been a resurgence of interest in postpartum IUCD. According to the data from country programs, the vast majority of PPIUCD users do not have any complications.

There are many case reports of uterine perforation due to postpartum IUCD insertion between 4 and 12 weeks. But we did not come across any case report of uterine perforation after post-placental or postpartum (within 48 h of delivery) IUCD insertion after normal delivery. We present a case report of uterine perforation following post-placental IUCD insertion.

Case Report

A 26-year-old P2 L2 came with complaint of misplaced Cu-T. She had two normal deliveries in the past. Her second child was 11 months old. She had a history of post-placental Cu-T insertion at government hospital at the time

Dr. Vineeta Gupta is a Professor & Head; Nidhi Kumari is a Senior resident; Divya Goswami is a Associate Professor; and Prachi Maheshwari is a Senior resident in the Department of Obstetrics and Gynaecology, SGRRIHMS & Shri Mahant Indiresh Hospital.

✉ Vineeta Gupta
vineetahims@yahoo.co.in

[1] Department of Obstetrics and Gynaecology, SGRRIHMS & Shri Mahant Indiresh Hospital, Patel Nagar, Dehradun 248001, Uttarakhand, India

of second delivery. She was breast feeding her baby. Her menstruation resumed 7 months after delivery. After 9 months of delivery, she developed amenorrhea again for which she went to the government hospital. As per her previous record, urine pregnancy test was done which was positive. On per-speculum examination, Cu-T thread was not visible, and cervix was found to be normal. On per-vaginum examination, uterus was 6 weeks in size, and soft, and fornices were free. Sonography of lower abdomen revealed intrauterine pregnancy of 6 weeks but Cu-T was not seen inside the uterine cavity. X-ray and ultrasound of whole abdomen were not done at that time. Patient was not willing to continue pregnancy. She was counseled to undergo MTP and was told that for diagnosis and removal of misplaced IUCD she will be referred to tertiary level hospital 15 days after MTP. She had MTP done few days back by suction evacuation method at government hospital and referred to our hospital as a case of misplaced Cu-T.

Her blood investigations were normal. X-ray of pelvis was done with uterine sound in place within the uterine cavity. X-ray pelvis showed Cu-T in pelvis outside the uterine cavity anterior to the uterine sound. She had history of laparotomy 10 years back for big ovarian cyst weighing 2 kg. She had a long midline vertical scar extending from suprapubic region to xiphisternum.

Patient was taken up for hysteroscopy with consent for laparotomy. On hysteroscopic examination, uterine cavity was normal in appearance, and cornual openings of both fallopian tubes visualized were normal. There was no evidence of recent perforation of the uterus. Cu-T or its threads were not seen anywhere in the uterine cavity or endocervical canal. Therefore, mini laparotomy was carried out. Cu-T thread was seen protruding from the uterovesical fold. After opening the anterior leaf of peritoneum, bladder was gently pushed down. Small portion of transverse limb of IUCD was visible over the cervix and purulent discharge was seen coming out from the embedded side. The device had perforated at the level of utero-cervical junction as seen in Figs. 1 and 2. Cu-T was gently pulled out, abscess was drained, and hemostasis was secured. Post-operative recovery was uneventful.

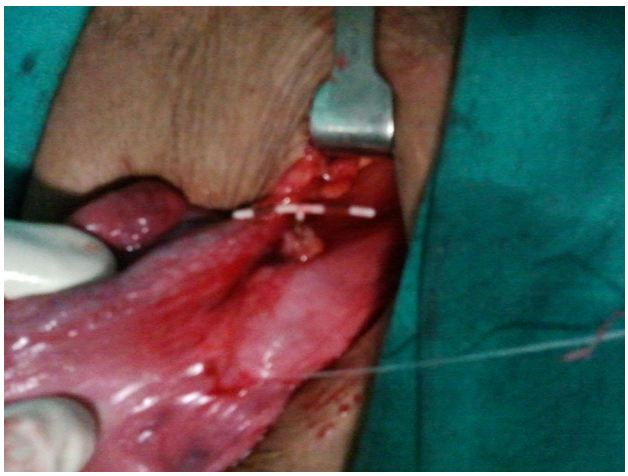

Fig. 1 Magnified view showing the utero-cervical junction and transverse limb of embedded Cu-T

Fig. 2 Showing the embedded IUCD

Discussion

Intrauterine device insertion is convenient and efficient in the post-placental and immediate postpartum periods. Insertion at that time is demonstrably safe, having a low incidence of infection, few bleeding problem, and negligible perforation ratio.

In a systematic review by Kapp and Curtis [2], the outcomes of postpartum insertion of IUD at different time intervals were compared. The evidence demonstrated no increase in risk of complications among women who had an IUD inserted during the postpartum period; however, some increase in expulsion rates occurred with delayed postpartum insertion when compared to immediate insertion. Expulsion rates were more when compared to interval insertion. Post-placental insertions during cesarean section were associated with lower expulsion rates than post-placental vaginal insertions without any increase in other complications. Insertion complications of perforation and infection were not increased by IUD placement at any time during the postpartum period [2]. There were no cases of uterine perforation during PPIUCD insertion so far in various studies [3, 4].

Perforation of the uterus by an IUCD is a serious complication. The majority of perforation is not recognized at the time of the insertion and may not be identified until years afterward. Our case was also asymptomatic and

presented as misplaced IUCD. The transmigrated IUCD may cause infection, abdominal pain, intestinal obstruction, and adhesion formation. It can involve several organs such as bladder and bowel leading to perforation and associated complications. Nadseh et al. reported a case of pelvic mass due to transmigrated IUCD [5], and Hao-ming chang et al. also reported a case of appendicitis due to transmigrated IUCD [6]. However, in our case, IUCD migrated anteriorly and got stuck in uterovesical fold, fortunately not perforating the bladder. Follow-up examination is recommended 4–12 weeks after insertion. In our case, patient did not go for any follow-up till she had amenorrhoea and was 6 weeks pregnant. An ultrasound to confirm proper insertion is recommended, although it is not a standard practice. Regular self-examination for thread is useful in the early detection of migrated IUCD. A plain radiograph of the lower abdomen including pelvis is usually the initial investigation of choice to verify the presence of the IUCD in the pelvis. Once found, an ultrasound examination has to be done to determine the location of the IUCD in relation to the uterine cavity.

The treatment of a migrated IUCD is surgical, either laparoscopy or laparotomy. Laparotomy may be required in cases of dense adhesions because of previous surgery. In our case, laparotomy was done because she had a long midline vertical scar extending from suprapubic to xiphisternum region.

This case report highlights the importance of using proper technique during postpartum IUCD insertions. One should ensure high fundal placement by straightening out the lower uterine angle by applying upward pressure on the uterus. Each and every step in the standard check list of correct insertion technique should be followed to avoid such complications. Probably in this case, the lower uterine angle was not corrected by applying upward pressure on the uterus which is why the IUCD was perforated through the cervix anteriorly at the utero-cervical junction, but fortunately it did not perforate into the bladder.

Moreover, there is a need to report such complications to generate data and create awareness among the service providers. Therefore, additional training for postpartum insertion of IUCD should be provided to the clinicians to avoid such complications.

Conflict of interest Dr. Vineeta Gupta, Dr. Nidhi Kumari, Dr. Divya Goswami and Dr. Prachi Maheshwari hereby declare that they have no conflict of interest.

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