The Lost String: Unusual Location & Management

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Abstract- Intrauterine contraceptive devices (IUCDs) are the major contraceptive measures in the developing countries like India where population is ever increasing and people are non-compliant. Perforation of the uterus is not an unusual complication of an IUCD with its incidence being 1 to 3 in 1000. It is important to minimize complications, detecting them early by educating people, training the staff to insert cu-T by arranging workshops. However, here we had a unique case in TNMC & BYL Nair Hospital, Mumbai, where A 25year female P2 L 2 MTP2 with an IUCD which not only perforated the uterus but also migrated to the anterior abdominal wall engulfed by the omentum and floating in a pocket of pus. IUCD was removed laparoscopically with tubal ligation.

Index Terms- IUCD, Intrauterine contraceptive devices, contraceptive measures

I. Introduction

Since ages there have been debates conducted on the pros and cons of usage of contraception and their types. Intrauterine contraceptive devices (IUCDs) are the major type of contraceptive measures used in the developing countries like India where people are resistant to use any mode of contraception due to lesser literacy rate and sensitization of people towards its importance.

Most widely used IUCD's are copper releasing devices. Since Cu-T 380A is the commonest IUCD used in India as it has been supplied by the Government free of cost. They are one of the most effective, safe, reliable, and cheapest contraception methods with failure rate<1 per 1000 women year [1, 2]. IUCDs have minimal side effects like bleeding, pain. But there have been incidences reported where it has caused grave complications like infection, perforation, transmigration, and accidental pregnancies.[3]

Misplaced IUCD is termed as the condition when IUCD thread is not visualized through the cervical OS.[4] Malpositioned IUCD is a condition where, although the IUCD is present within the uterine cavity but its placement is eccentric and part or the whole of it may be embedded in the myometrium.[5]

Transmigration of IUCDs is a very rare but a dangerous complication. Perforation of the uterus is not an unusual complication of an IUCD with an incidence of 1 to 3:1000 [6.] However here we have a unique case where an IUCD not only perforated the uterus but appeared to have penetrated the bladder too and migrated to anterior abdominal wall which was finally removed by laparoscopy.

II. CASE REPORT

A 25 years old female P2L2 MTP2 referred from Shatabdi hospital Mumbai with complaints of pain in lower abdomen since 15 days. The pain was localized to hypogastric region, dull aching type, not radiating to any other site with no diurnal variation not associated with any urinary complaints or any vaginal discharge. Her menstrual cycles were regular and normal. She had two full term normal deliveries and conceived for the third time for which she went through MTP and had cu-T inserted in June 2016 in Bihar. Unfortunately, she conceived again with cu-T in situ in December 2016 and the local doctors opted for Dilation and evacuation. The procedure was done at 8 weeks of amenorrhea. During this cuT was not found in uterine cavity. X ray KUB was done to find the lost cu-T which was suggesting of Cu-T being dislodged extra uterine.

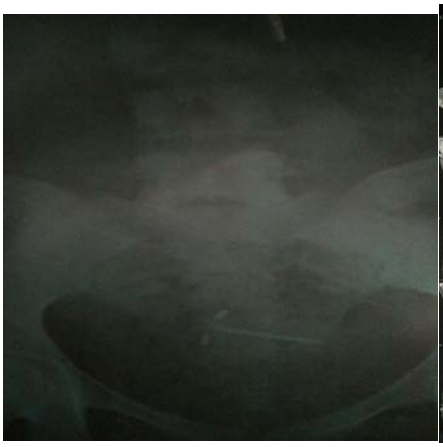

Figure 1
1.X-ray KUB showing extrauterine cu-T

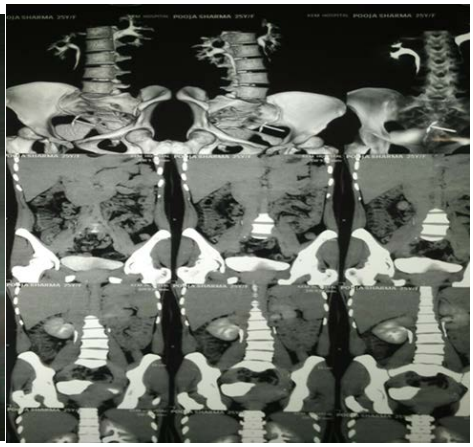

Figure 2
2.CT-IVP showing IUCD outside uterus

Patient was referred to our center with USG showing a cystic anechoic out-pouching of urinary bladder containing cu-T . Her Per abdominal examination was not significant. On, bimanual examination a mass of 2x2 cm was palpable anteriorly. Hence we decided to do CT IVP to confirm the location which was suggestive of IUCD displaced outside uterus above urinary bladder(figure 2). There was no significant defect in uterus.
Location was not clear from the imaging hence further to approach cystoscopically or laproscopically was a dilemma. Laparoscopic approach was decided through which the strings were found hanging below anterior abdominal wall, which was thought to be located in the urinary bladder(figure 3). Adhesiolysis was done and found that there was a pus pocket of 4x4 cm where IUCD was engulfed in that by omentum. The offending IUCD was removed and Tubal Ligation was done. The post-operative status was uneventful.

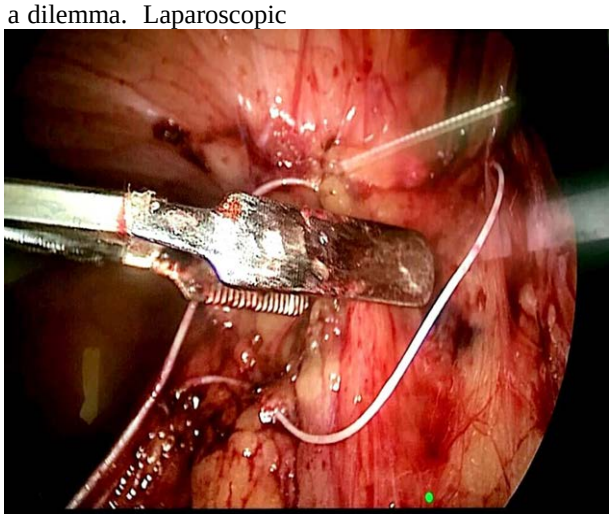

Figure 3
3. IUCD thread hanging engulfed by omentum adhered to anterior abdominal wall

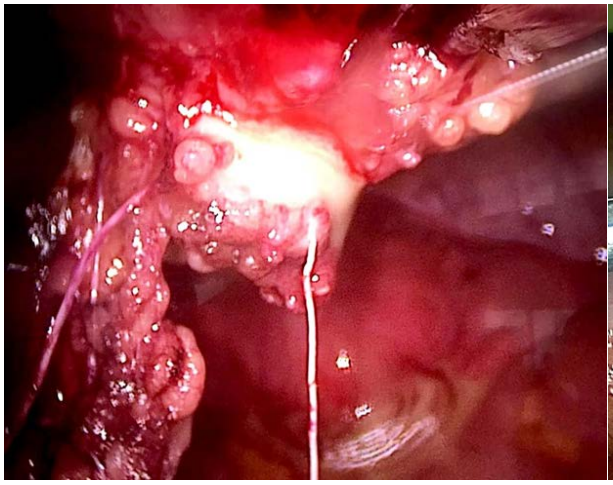

Figure 4
4. Iucd inside pus pocket

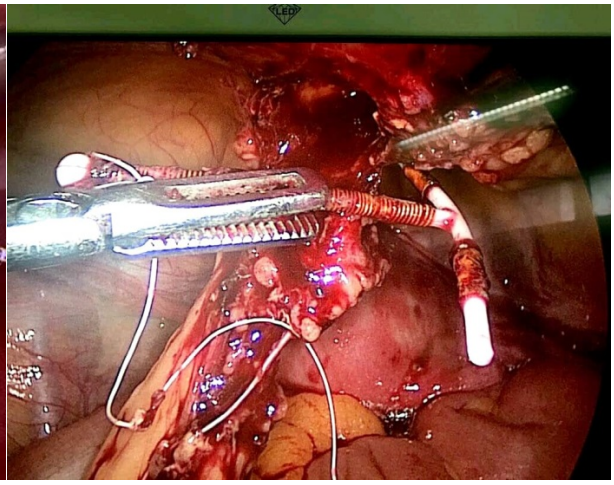

Figure 5
5.Laproscopic Iucd removal

III. DISCUSSION

There are 3 generations of IUCD. Cu-T which is 2nd generation is most commonly used. Out of which cu-T 380A is most commonly used as it is supplied free of cost by government of India. It can be inserted post-placental, post abortal, post menstrual within 5 days in parous women. It is effective for 10 years once inserted , so if reinserted after the 1st it almost covers the reproductive period of a women, as good as permanent contraception i.e. sterilization. Contraindications for IUCD insertion are pregnancy, pelvic inflammatory disease, genital Koch's, genital malignancy, mullerian anomaly, postpartum hemorrhage in case of PPIUCD. It may cause complications like menorrhagia, irregular bleeding, pelvic inflammatory diseases, ectopic pregnancy and silent uterine perforation.[7, 8]

Most perforation occurs at the time of insertion [8] while migration occurs after that. Parity, timing of IUCD insertion, uterine position, abortions, type of IUCD and the operator experience and skill, these factors are responsible for transmigration.[7] Chronic inflammatory process iniatiated by copper content of the IUCDs which leads to the erosion of the uterine wall causing its migration. [9] Uterine contractions and the pressure difference between the uterine (high) and the peritoneal cavity (low)[8] further facilitates it while the migration in the peritoneal cavity is facilitated by the contractions of the abdominal organs as well as movement of the peritoneal fluid.[1,8]

Most perforation go undetected as it may lead to transient pain and bleeding at the time of insertion. Perforation is suspected if thread is missing and unexplained abdominal or pelvic pain. Diagnosis in can be done with USG and CT.

If USG is not available or non-affording patient, plain X-ray of the abdomen is done to see its presence in the pelvis or abdomen (when IUCD is not loclised on USG). Uterine sound is used to measure the distance of the IUCD from the uterus during an X-ray. IUCD located in abdominal cavity should be removed urgently even in asymptomatic patients[10] because of risk of dangerous complications like bowel perforation, rectovaginal fistula, rectal strictures, bladder perforation, bowel obstruction, appendiceal perforation and mesenteric perforation, peritonitis.[11] Laparoscopy is a preferred modality for the removal of all types of misplaced or malpositioned IUCDs ,[12] if it fails then laparotomy is required. Hysteroscopy can be used to remove cu-T in uterine cavity or embedded in the myometrium.

IV. CONCLUSION

Effective contraception is need of time in India where the population is ever increasing with limited resources. People should be motivated to use cafeteria approach of contraception. It is important to minimize complications, detecting them early by educating people, training the staff to insert cu-T by arranging workshops. Increasing participation by incentives thereby improving quality of life by spacing children and eventually reduce maternal mortality.

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