

Diagnosis and management of misplaced intrauterine contraceptive device (IUCD)

Kauser Jillani, Razia Bahadur Khero, Safia Maqsood

Abstract

Objective: To diagnose the misplaced IUCD and its management.

Design & Setting: This observational cross sectional study was conducted in the Department of Obstetrics & Gynaecology at Peoples Medical College & Hospital Nawabshah from 1st January 2006 to 31st December 2007.

Material & Methods: All the patients referred or presented with lost string or misplaced IUCD were enrolled in the study. A proforma was designed containing information regarding patient's age, parity, place where IUCD was inserted and by whom, time duration of IUCD, presenting complaints, ultrasound and or x-ray findings, mode of IUCD retrieval, its location and complication.

Results: Out of 22 admitted patients of misplaced IUCD, device was found in the uterus of 12 (54.54 %) patients. It was removed by curette or retrieval hook in 10 (45.45 %) patients, while in 02 (09.09 %) patients removal was accomplished with hysteroscope. In 09 (40.90 %) patients, it was translocated to the peritoneal cavity and in one (04.54 %) patients completely migrated to bladder and was removed by cystoscopy. In the majority of the patients (81.81 %), device were inserted by LHVs and Dais.

Conclusion: Awareness of people about this safe, valuable and reversible method of contraception, its easy availability and the provision of trained personnel for its insertion as well as a regular follow-up is needed in developing countries.

Keywords: Intrauterine Contraceptive Device (IUCD) – Dilatation & Currettage (D&C) – Retrieval Hook, Laparotomy.

Introduction

Intrauterine contraceptive device (IUCD) is the most common, widely used reversible method of contraception, currently used by nearly 160 million women. It is the second most common method of contraception after sterilization¹.

The most widely used IUCDs are the multiloop and copper releasing devices including TCU 380 A and Nova T. These are highly effective with failure rate of < 1 per 1000 women per year².

The IUCDs are considered safe, cheap, effective and convenient method of contraception involving neither repetition nor interference with sexual activity. They are also suitable for lactat-

ing mothers because of no effect on the quality and composition of breast milk³. Even so, its acceptability is not upto the mark because of some side effects or complications associated with it, like increased bleeding, pain, infection, expulsion and perforation of uterine wall.

The IUCD string is used to monitor and remove the device. The primary diagnosis of lost string includes broken string, withdrawal into the uterus, expulsion, uterine perforation and translocation of the device⁴. Patient with misplaced IUCD may present with pregnancy (intrauterine/extrauterine), vaginal bleeding, pelvic pain or may remain asymptomatic for many years⁵.

Peoples Medical College,
Nawabshah
K Jillani
RB Khero
S Maqsood

Correspondence

Dr. Kauser Jillani
Assistant Professor Obs &
Gynae
Peoples Medical College,
Nawabshah
Cell: 03343187935

Ascertainment of the location of IUCD could be performed by careful inspection or exploration of the uterine cavity with ultrasound examination or if necessary by abdominal / pelvic radiography.

The accepted treatment for displaced IUCD is surgical removal because of the putative risk of adhesion formation or of damage to the intestine or urinary bladder⁶. Its retrieval can be accomplished by hysteroscopic guided uterine exploration, D & C, laparoscopy or laparotomy depending upon its location and availability of expertise and facility.

This study was designed and conducted to diagnose the misplaced IUCD and its further management.

Material and methods

This prospective cross-sectional study was conducted in the Department of Obstetrics & Gynaecology at Peoples Medical College Hospital Nawabshah over a period of 2 years from 01-01-2006 to 31-12-2007. All the patients referred or presented with lost string or misplaced IUCD were enrolled in the study. A proforma was designed containing information regarding patient’s age, parity, place where IUCD was inserted and by whom, time duration of IUCD, presenting complaints, ultrasound and or x-ray findings, mode of IUCD retrieval, its location and complication. The collected data was analysed and compared with other studies.

Results

A total number of 2086 patients were admitted in the Gynae ward at PMCH Nawabshah. Out of them, 22 patients had misplaced IUCD. Majority of the patients belonged to age group of 30 – 40 (54.54 %). Regarding their parity, maximum number of patients were grand multipara (85.80 %) (Table 1).

Majority of the patients presented with loss of string of device 40.90 %, while 31.33 % had lower abdominal pain and irregular vaginal bleeding. 02 (9.09 %) patients came with recurrent urinary complaints and 02 (09.09 %) patients

Table 1: Age and parity distribution

	No. of Patients	Percentage
AGE		
20 – 30	07	31.81 %
30 – 40	12	54.54 %
> 40	03	13.63 %
PARITY		
1 – 4	05	22.72 %
4 – 6	14	63.63 %
> 6	03	13.63 %

Table 2: Common presentation

Symptoms	No. of Patients	Percentage
Missing thread of IUCD	09	40.90 %
Abdominal pain	07	31.33 %
Heavy or irregular vaginal bleeding	02	09.09 %
Pregnancy with IUCD	02	09.09 %
Recurrent urinary symptoms (Increased frequency / dysuria / Suprapubic pain)	02	09.09 %

had associated pregnancy (Table 2).

In the series of 22 cases, device was found in uterine cavity in 12 (54.54 %) patients and removed by curettage or retrieval hook in 10 (45.45 %) patients, while in 02 (09.09 %) patients, it was stuck to uterine wall and removal was accomplished with the help of hysteroscope. In one (4.54 %) patient, IUCD completely migrated to urinary bladder and removed by cystoscopy. For the rest of the cases, laparotomy was performed (Table 3).

All IUCDs were Copper-T. In majority of the cases, IUCD was inserted by lady health visitor (LHV) (50 %) and Dais (31.81 %), while in 13.63 % patients it was inserted by doctors practicing in peripheral areas. Only one (4.54 %) patient had their IUCD insertion in family planning centres.

Discussion

IUCD is most commonly used method of contraception in many countries. Despite its cost effectiveness and reliability, it is associated with side effects and complication.

Table 3: Procedures performed

Procedure Performed	Site	No. of Patients	Percentage
Dilatation and Exploration of uterine cavity (with curette or retrieval hook)	Uterine Cavity	10	45.45 %
Hysteroscopic guided uterine exploration	Stuck to the uterine wall	02	09.09 %
Cystoscopy	Completely migrated to urinary bladder	01	04.54 %
Laparotomy	Device adherent to omentum/gut	05	22.72 %
	Embedded in Tubo-ovarian Mass	02	09.09 %
	Found in uterovesicle pouch and translocated to urinary bladder	01	04.54 %
	Found in pouch of douglas	01	04.54 %

This study included all patients of lost IUCD who came directly or referred from private centres or peripheral hospitals, where initial attempt of device removal was unsuccessful. These patients were already investigated by ultrasonography and or x-ray abdomen and pelvis.

Regarding their age and parity, most of the patients were > 30 years and were grand multipara. These findings consistent with other studies^{7,8}.

In this study, majority of the patients had no symptoms other than missing string of device (40.90 %). N Elahi⁸ and Jamelle⁹ in their studies reported the patient with similar presentation 32.4 % and 37.14 % respectively. Abdominal pain was another main symptom presented in 31.33 % patients with variable nature and intensity, while it was the main presentation of the patient in the study by N. Elahi⁸ (42.86 %) and Andersson¹⁰ (62 %).

02 patients (09.09 %) had irregular vaginal bleeding, out of them one patient also had complaint of foul smelling vaginal discharge. Other studies showed a variable incidence of vaginal bleeding^{10,11}.

02 (09.09 %) patients were admitted with associated pregnancy. One of them had 07 weeks pregnancy with IUCD in situ. She underwent

abortion following the removal of device while in another patient with 06 weeks pregnancy device was in cervix and removed easily without any complication. Duolao Wang¹² gave the incidence of 9.5 % pregnancies with IUCD while N. Elahi⁸ reported 7.71 % such cases. Singhal Savita¹³ reported an important case of multiple intrauterine devices in a pregnant uterus.

In 12 (54.54 %) patients, IUCD was in the uterine cavity, in which 10 (45.45 %) patients needed D & C and retrieval hook; while in 02 (09.09 %) as the IUCDs were adherent to uterine wall so hysteroscopic guided removal was carried out. According to Barsaul M¹⁴ and Lawal⁷, 79.79 % and 63.48 % patients respectively had their device inside the uterine cavity.

In 09 (40.90 %) patients, there was complete uterine perforation and transmigration to peritoneal cavity. As laparoscopy was not available at the time of study, these patients were proceeded to laparotomy. At laparotomy, in 05 patients device was adherent to omentum and/or gut. It was removed followed by gut repair in one patient. In 02 patients, it was embedded in tubo-ovarian mass; in one patient it was in pouch of Douglas and in 01 patient, device was found in uterovesicle pouch, where it had partially perforated the urinary bladder wall. These findings show an increase rate of transperitoneal migration of IUCDs in this study, which reflects an improper training of medical personnel who are involved in the insertion of IUCD. N. Elahi⁸ reported 28.57 % cases, while Barsaul M et al¹⁴ reported only 5.56 % cases of IUCD migration to peritoneal cavity. Ajita J Nawale¹⁵ reported an unusual and neglected case of misplaced IUCD in 70 years old lady, who presented with pelvic mass and primary diagnosis was an ovarian tumour.

In one (04.54 %) patient, device had completely migrated to urinary bladder and removed by cystoscopy. A number of cases of uterine perforation and complete translocation to urinary bladder have been reported. Farkhanda¹⁶, AR Jayadev¹⁷ and Betul et al¹⁸ reported such cases while M. Rafique & A.I Zaidi¹⁹ and Atakan²⁰ re-

ported the transmigration with stone formation. Partial or complete uterine perforation is an important, avoidable complication of IUCD insertion. Accurate determination of the position and size of the uterus and strict adherence to the recommended insertion protocol could prevent perforation.

Awareness of people about this safe, valuable and reversible method of contraception, its easy availability and the provision of trained personnel for its insertion as well as a regular follow-up is needed in developing countries.

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