

Diagnosis and Management of Lost Intrauterine Contraceptive Device

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Abstract

Objective: To study the pattern of referral, method of diagnosis and management of patients admitted with lost Intrauterine Device (IUD).

Methods: A prospective study was conducted about lost intrauterine contraceptive devices and its management, in Gynaecology Department of Nishtar Hospital, Multan. Twenty eight patients with lost IUD were identified out of 7816 gynaecology admissions, during this period. The diagnosis was made on ultrasonography.

Results: IUDs were removed after dilatation of cervix and exploration of uterine cavity in 20 patients. Five cases underwent laparotomy, in 2 cases laparoscopic removal was done and in one case IUD was taken out through proctoscope. In most of the cases IUD was inserted by untrained personnel.

Conclusion: It is recommended that IUDs should be inserted after proper case selection by trained medical professionals (JPMA 52:18, 2002).

Introduction

Intrauterine contraceptive device (IUD) is a convenient, effective contraceptive and relatively safe with failure rates only slightly higher than those for oral contraceptives. Approximately 85 million women are using it all over the world. In Pakistan, especially in rural areas, it is acceptable to most of the couples due to its safety, cost effectiveness and convenience of use¹.

Copper containing IUDs produce both morphological and biochemical changes in the reproductive tract². They induce a sterile inflammatory response in the endometrium, changes various enzymes needed for implantation, DNA cellular content, glycogen metabolism and uptake of estrogen by the endometrium. Hormone releasing devices keep the endometrium thin and atrophic and make cervical mucous hostile for sperm transport³. They also disrupt tubal ciliary action and maturation of oocytes⁴.

Intrauterine devices have got certain risks, e.g., bleeding, pain lower abdomen, increased incidence of pelvic inflammatory disease (PID), risk of spontaneous abortion in case if pregnancy occurs, expulsion and uterine perforation⁵. A case of bladder stone formation 8 years after the migration of an IUD to the bladder has been reported in literature⁶.

A missing string may signify either unrecognized expulsion, retraction of the string into the cervix or uterus, enlargement of the uterus by pregnancy or perforation with an extrauterine location of the IUD. Patient usually presents with lower abdominal pain. The triad of abdominal pain, intermittent diarrhoea and fever associated with missing string is indicative of bowel injury.

There are different methods for the diagnosis of lost IUD. Plain X-ray abdomen and pelvis with some radioopaque marker in uterine cavity can be helpful. Ultrasonography

(USG) is a good non-invasive procedure and beolocator can also detect intrauterine embedded devices⁷. Removal is accomplished by hysteroscopy, dilatation and exploration of the uterine cavity and laparoscopy or laparotomy depending upon its location⁸. This study reports the method of diagnosis and management of lost IUD and source of their referral.

Patients and Methods

All the patients who presented with the complaint of lost IUD in Gynaecology outpatient department between December 1994 to December 1996 at Nishtar Hospital, Multan were included. Age, parity, complaints at the time of referral, method of diagnosis, mode of retrieval, complications and the type of IUD removed were noted.

The place and the person who inserted the IUD were specifically recorded. For the diagnostic purpose, we used X-ray abdomen and pelvis ultrasound and laparoscopy. The results were analysed and compared with other studies.

Results

Out of total admissions of 7816 patients, 28 cases were of lost IUD. None of the patients was nulliparous. Majority (71.43%) of the patients were grand multiparas. Only 8 (28.57%) were between the range of par 1-4.

Presenting complaints are listed in Table 1.

Table 1. Presenting complaints.

Symptoms	Number	Percentage
Abdominal pain	12	42.86
Thread not felt or visible	9	32.14
Irregular vaginal bleeding	2	7.14
Pregnancy with bleeding	2	7.14
Past history of pregnancy after insertion of IUD	2	7.14
Thread felt while straining at stool	1	3.58
Total	28	100.00

The most common presenting features were abdominal pain and thread not felt. An unusual presentation was the presence of thread in the anal canal, while straining at stool. Exploration of the uterine cavity was done under anaesthesia. In 20 cases (71.42%), removal of the device was accomplished on initial uterine cavity exploration. Retrieval hook and simple uterine curette helped in this procedure. For rest of the cases laparoscopy was performed. In two cases (7.14%), IUDs were retrieved through it whereas in 5 cases (17.86%) we had to proceed for laparotomy (Table 2).

Procedure	Table 2. Method	of removal.	
	Site	Number	Percentage
Dilatation Exploration of the uterine cavity	Displaced or stuck in the uterine wall	20	71.42
Laparoscopy followed by laparotomy	CuI adherent to mass, omentum or gut	5	17.86
Laparoscopy Proctoscopy	Free in pouch of Douglas Impacted in rectal wall with the string hanging free in anal canal	2 1	7.14 3.58

Twenty two (78.58%) IUDs were copper-T and 6 (2 1.42%) lippes loop. Most of the IUDs were inserted by the traditional birth attendants (14 cases) and lady health visitors (10 cases). In 4 cases insertion was carried out at family planning centre by doctors.

Discussion

This prospective study includes patients with lost IUDs. Total number of insertions during the period of study was not available because the patients came from different areas and the insertions were performed privately as well as in a family planning centre. The prevalence of lost IUDs in the study by Jammelle was 0.61%⁹ and in our study 0.36%.

Main modality used for diagnosis was ultrasonography. In a few cases X-ray abdomen and pelvis were already done elsewhere and diagnosis was further confirmed by doing either ultrasonography or repeating Xray by placing uterine sound in the uterine cavity and taking a lateral view. Laparoscopy helped before proceeding for laparotomy and removal was accomplished through it. Hysteroscopy is one of the best diagnostic as well as therapeutic tools. It was not available at our hospital when this study was conducted. For IUDs which were located by ultrasound and were in utero, dilatation and exploration of the uterine cavity was the frequently used method of removal.

In our study, age of the patients ranged from 22 to 46 years. All were para-3 and above. None of the patients was nulliparous, while in the study by Jamelle⁹ one patient was nulliparous. Abdominal pain was the leading symptom (42.86%) in our study. In other studies it varied from 9.6% to 44.8%^{1,9,10}. Pain may occur due to intrauterine displacement and stretching of uterine wall, infection and complication of pregnancy. Nine (32.14%) cases presented with a history of missing IUD thread. This compares with 3 7.14% cases reported by Jamelle⁹ and 23.8% by Lawal et alp. In all cases of our series string was absent at speculum examination. Irregular bleeding was seen in 2(7.14%) cases while 11% cases had a similar presentation reported by Anita et al¹⁰. Two (7.14%) of our cases presented with pregnancy associated with IUD in situ. Two (6.9%) were reported by Jamelle⁹ and 4% by Anita et aV 0. Among these two cases in our study, one patient was 36 weeks pregnant and copper-T was located at the site of placental attachment on ultrasonography. Second patient presented with incomplete abortion. Copper-T was removed during evacuation of retained products of conception. Two (7.17%) patients gave history of conception ending in spontaneous abortion, while in the study by Jamelle⁹, 6.9% such cases were reported. In 5 (17.86%) cases immediate laparotomy had to be performed due to the adherence of the Cu T with omentum, gut and tubo-ovarian masses. Small gut was found perforated in one case with the contents lying free in the peritoneal cavity. After removing the device, primary repair of the gut was

performed. Jamelle⁹ also experienced one such case. There was one patient who complained of the presence of thread while straining at stool, which was found to be in the rectum at proctoscopy. No such case was previously reported in literature. The complications of lost IUD are seen mostly in patients when the IUD was not inserted by trained doctors or personnel. Contraceptive methods should be available easily and inserted by trained personnel. The recognition of missed IUD and its prompt treatment is also mandatory for the reduction of further complications. Proper case selection, care with fitting and access to experts in case of complications are required to maintain the acceptability and usefulness of this method. Enough length of the string i.e., 3 cm should be left in the vagina and avoidance of tight pulling of string while cutting will prevent its retraction inside the uterus. Awareness about its proper insertion through trained persons is still needed at mass level. Otherwise, few complicated cases can limit the usefulness of this contraceptive method.

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