

Original Research Article

Misplaced of Intrauterine Devices: The Endoscopic Management

K. Bouras^{1*}, C. Bentabet¹, K. Saoud¹, N. Mamouni¹, S. Erraghy¹, C. Bouchikhi¹, A. Banani¹¹Department, Gynecology and Obstetrics I UHC Hassan II FES University Sidi Mohammed Ben Abdallah, Fez, Morocco

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Abstract: Intra uterine device migration is a relatively rare event. The migration of the IUD in the surrounded viscera can be managed by endoscopy approach. **Objectives:** We reported our experience to determine the epidemiologic characteristics of patients that presented migrated IUD, to report clinical aspects and describe the laparoscopic management. **Method:** The study includes 10 patients reported to obstetrics and Gynecology I department of UHC Hassan II FES in the last 4 years (2018-2021). In all the patients a gynecological examination, ultrasound evaluation abdomen and pelvis were done to locate the misplaced IUD. If the device was found to be intrauterine, hysteroscopy was done to locate and retrieve device. In those patients in whom the IUD was confirmed to be extrauterine diagnostic laparoscopy was done. **Results:** The average of age was 34.5 years. Majority of patients were primipara (53.3%) and 46.6% were multipara. As far as timing of insertion is concerned 6 (60%) were postpartum, 4 (40%) were postmenstrual. The average of time interval between insertion and removal is 3, 12 years. Of the 10 misplaced intrauterine devices 4 were found partially embedded in uterine wall and 6 of the misplaced IUD's were found deeply embedded in the uterine cavity. After their location they were removed hysteroscopically One patient reported with 8 weeks pregnancy and misplaced IUD. The device was confirmed to be intrauterine on transvaginal sonography. She had full term normal delivery and IUD was removed after 6 weeks hysteroscopically. None of our patient had an extra uterine migration that required a laparoscopy.

Keywords: Intrauterine contraceptive device, misplaced, endoscopy, IUD (Intrauterine device).

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INTRODUCTION

Intrauterine devices (IUDs) are a commonly used form of contraception worldwide. However, migration of the IUD from its normal position in the uterine fundus is a frequently encountered complication, varying from uterine expulsion to displacement into the endometrial canal to uterine perforation. Different sites of IUD translocation vary in terms of their clinical significance and subsequent management, and the urgency of communicating IUD migration to the clinician is likewise variable. Expulsion or intrauterine displacement of the IUD leads to decreased contraceptive efficacy and should be clearly communicated, since it warrants IUD replacement to prevent unplanned pregnancy.

MATERIAL AND METHODS

The study includes 10 patients reported to obstetrics and Gynecology I department of UHC Hassan II FES in the last 4 years (2018-2021). In all the patients a gynecological examination, ultrasound

evaluation abdomen and pelvis were done to locate the misplaced IUD. If the device was found to be intrauterine, hysteroscopy was done to locate and retrieve device. In those patients in whom the IUD was confirmed to be extrauterine diagnostic laparoscopy was done.

RESULTS

The average of age was 34.5 years. Majority of patients were primipara (53.3%) and 46.6% were multipara. As far as timing of insertion is concerned 6 (60%) were postpartum, 4 (40%) were postmenstrual. The average of time interval between insertion and removal is 3, 12 years.

Of the 10 misplaced intrauterine devices 4 were found partially embedded in uterine wall and 6 of the misplaced IUD's were found deeply embedded in the uterine cavity. After their location they were removed hysteroscopically. One patient reported with 8 weeks pregnancy and misplaced IUD. The device was confirmed to be intrauterine on transvaginal

*Corresponding Author: K. Bouras

Department, Gynecology and Obstetrics I UHC Hassan II FES University Sidi Mohammed Ben Abdallah, Fez, Morocco

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Endovaginal ultrasound: migration of intrauterine device

DISCUSSION

Intrauterine device is a widely used reversible method of Contraception, preferred due to long duration of birth control effect and ease of use. However, it also has some serious complications such as perforation of the uterus and its migration to the abdominopelvic structures. Primary perforation may occur during insertion by mechanical forces. Some of the known risk factors for IUD perforation are inadequate training of family planning providers, insertion at early puerperal period when uterus is soft and bulky, past history of perforation (formation of a new canal with previous inappropriate insertion), and anatomically highly (ante or retro) flexed uterus. Most of the patients were > 30 years and were grand multipara with maximum incidence following previous ILSCS. These findings are consistent with other studies. IUCD was in the uterine cavity in [7, 8] 29 (81%) patients. Seven (20 %) patients among those needed long artery forcep. IUCDs were adherent to uterine wall in 22 (61%) patients requiring hysteroscopic guided removal. According to Barsaul M and Lawal, 79.79% and 63.48% patients [9, 7] respectively had their device inside the uterine cavity. In a study by Trivedi SS et al on 38 patients with [10] intra-uterine devices with lost strings, hysteroscopic aid was required after routine retrieval procedures failed. Thirty-five intra-uterine devices could be removed easily with hysteroscope. Laparotomy was required in only one patient, for an extra-uterine Copper-T. In one series of 324 cases with misplaced IUCD one in: 258

(79.93%) cases Copper-T was [9] found in the uterine cavity and in 47 cases (14.51%) it was removed from cervical canal. In only 18 cases (5.56%), it was translocated. The incidence of uterine perforation is very low, but in the literature nearly 100 cases are reported about the extra uterine localization of IUCD. Three patients (8%) had complete uterine perforation and transmigration to peritoneal cavity. Successful laparoscopic removal was done in 02(66.6%) patients, while in the third patient, a nulliparous woman having history of Cu-T 380A insertion at peripheral hospital by an auxiliary nurse midwife on day-5, the device was found perforating the large bowel. It was removed followed by gut repair. These findings show an increase rate of transperitoneal migration of IUCDs in this study, which reflects an improper training of medical personnel involved in the insertion of IUCD. Elahi N reported 28.57 % cases, while Barsaul M et al., [8, 9] reported only 5.56 % cases of IUCD migration to peritoneal cavity. The symptoms of an IUD perforation are diverse varying from a subsequent unwanted pregnancy to irritant lower urinary tract symptoms, [2, 3] chronic pelvic pain, peritonitis, and fistulae or abscess formation depending on the organ of penetration and the interval since penetration and patient's response. Ultrasonography and plain X-ray are diagnostic for echogenic and radio opaque foreign body, respectively. World Health Organization has recommended removal of a dislocated IUD as soon as possible irrespective of their type and location. It is advised to [4] retrieve a migrated IUD by minimally

invasive techniques. Endoscopic techniques such as [5] colonoscopy, hysteroscopy, and cystoscopy can be used for diagnosis and treatment depending on the location of IUD. A review of surgical techniques to remove IUD revealed that 93% of the reported cases in literature attempted laparoscopically, but cases of both abdominal and pelvic organ perforations have the laparotomy rate of 57.1%. Valle and Freeman [6] advocated hysteroscopy as a primary method for locating and removing IUDs with missing tails in order to avoid unnecessary X-ray exposure and injuries by blind exploration.

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.

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