

HYSTEROSCOPE AS A PRIMARY TOOL
IN THE MANAGEMENT OF MISSED THREADS OF
INTRA-UTERINE CONTRACEPTIVE DEVICES

THESIS



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INTRODUCTION

The feasibility of intra uterine visualization has added a new dimension to diagnostic gynecology.

As the technique of hysteroscopy has evolved and been refined, and new instruments and media for intra uterine distention have been developed, intra uterine surgical intervention under endoscopic guidance has become safe and effective.

With the increased use of intra uterine devices (IUDs) for contraception has come an increase in the number of related problems. A frequent clinical problem is the loss of the filaments at the external cervical os. This situation usually raises the question of translocation versus inadvertent expulsion.

In either situation the effectiveness of the method of contraception is reduced.

Although new devices have been designed to increase effectiveness and decrease such side effects as bleeding, cramping and possible infection the problem of filament migration has remained unsolved, the use of hysteroscopy as diagnostic and

operative technique has modified the approach to the retrieval of foreign bodies from within the uterine cavity. Formerly this problem was approached by gross and blind transcervical manipulation. To day it is possible to remove intrauterine foreign bodies selectively under endoscopic control.

Additionally, hysteroscopy was used as a primary method for locating and controlling intra uterine devices with absent filaments, in order to avoid exposing the patient unnecessarily to x-ray and potentially traumatic transcervical manipulation.

Aim of the work

To assess the value of hysteroscope as a primary out patient procedure in the management of cases with missed threads of IUDs.

' REVIEW ,

MISSING TAIL

Failure to visualize the intrauterine contraceptive device tail on vaginal inspection may be due to unnoticed expulsion, perforation, short tail or tail retraction within the uterine cavity (Ansari, 1983).

Expulsion

Expulsion is the end result of more or less forced migration and/or the consequence of an insufficient retention of the device.

The incidence of expulsion in most large studies ranges from about 5-20 % after one year of insertion (Population report, 1971).

Several factors were found to cause retention or expulsion of (IUCD) in the uterine cavity these could be either related to the device such as, configuration, size, material, medication, insertion technique and localization.

The expulsion rate is higher with the small device than larger one of the same configuration (Tietz et al., 1970).

The expulsion rate may be correlated with the fitness of the device within the uterus. A dimensional disproportion between the device and the uterine cavity provokes uterine irritation and myometrial contraction (Kamal, et al., 1974).

Devices with intravaginal tail may be pulled out if they become entangled with vaginal tampon during menstruation (Jeffcoate, 1975).

The rate of expulsion also differs with degree of training and experience of the inserting person.

The uterine conditions as size, shape, degree of flexion of the axis, position, condition of internal os and cervical canal, contractility, irritability, secretions, type of bleeding, parity, time of insertion anaesthesia, were all found to affect uterine retention of IUCD.

Nulliparous women with small uteri do not tolerate the large devices and they have higher expulsion rate with all devices (Bernard, 1970).

Tietze (1970) noted the relation between the expulsion and time of insertion, reported higher expulsion rate in insertions done 4-8 weeks post partum,

also highest incidence of expulsion was in the first 3 months of use.

Expulsion takes place more frequently during menstruation specially the 1st menstrual period after insertion where the uterus contracts exerting a downward force (Nemes , et al., 1974).

Tail retraction within the uterine cavity may be due to malposition of the IUCD on insertion, rotation of IUCD or uterine enlargement which causes the tail to be pulled into the endometrial cavity. Retraction of the tail can occur without rotation of the device, this is more common with copper T (Ansari, 1974).

Perforation:

The reported rate of uterine perforation vary from 1 in 850 to 1 in 2600 insertion (Edelman, 1979). However the exact incidence of uterine perforation is difficult to establish as it varies greatly from program to program.

The risk of perforation is presumed to be related to the skill of the inserting person the technique of insertion, state of configuration of the uterus and cervix and the type of the IUD (Tatum, 1977).

Ratman (1970), reported greater rate of perforation after 8 weeks post partum insertion of lippes loop than if done after that. Daniel (1982) stated that the uterine perforation had no relation with the time of insertion of IUD, he studied the perforation rates in two groups of patient 4 and 8 weeks post partum insertion and no uterine perforation occurred.

Heartwell and Sarah, (1983) reported 10 fold increase in the risk of perforation among women who are lactating at the time of insertion, the aetiologic implication of this finding may be related to the physiology of lactation.

Topkins (1943) and Udesky (1950) observed a general atrophy of the uterus and low estrogen endometrium among normal lactating women prolonged post partum lactation amenorrhoea may induce hyperinvolution of the uterus (El-Minawi, 1971).

An accelerated rate of uterine involution and prolonged contractility may also suggest a role of prolonged oxytocin secretion in the aetiology of uterine perforation in lactating women.

Fundal perforation is believed to occur or begin at least at the time of insertion, cervical perforation,

however, usually is the result of downward displacement of the IUD as a result of uterine contraction.

Mechanism of uterine perforation

Perforation was formerly thought to occur by embedding and gradual erosion of IUD through the uterine wall (Esposito, 1966). He suggested later on (1973) that perforation occurred only at the time of insertion. Both theories are now accepted to explain immediate and late perforation.

Site of uterine perforation

The site of perforation depends on possible uterine factors

In cases of retro verted uterus. Perforation is most likely to occur near the isthmic portion. When the uterus has been correctly positioned for insertion the fundus is, however, the most common site of perforation.

The site of perforation seems to have no effect on the possible clinical symptoms associated with perforation.

Kamal and Ghoneim (1974) reported 12 cases of cervical penetration out of 950 insertion. They found that the occurrence of this cervical penetrations has no relation to the parity, time of insertion, length of use, and the size of the uterus and its position.

The patient may report a pelvic pain at the time of insertion or some discomfort during subsequent hours.

Koetsawang and Coworkers (1982) stated that the three most frequent events leading to suspicion of perforation are, inability to remove IUD 36%, pregnancy 38% and missing threads 26%.

Sometimes the perforation of the uterus passes asymptomatic when incarceration of IUD within the uterine cavity is believed to occur as a gradual process, the parts of the device which impinge upon the endometrium may cause pressure necrosis of the underlying tissue.

The impinged part may sink gradually deeper into the uterine wall and become overgrown by epithelium, this asymptomatic incarceration is usually undetected until difficulty in removal of the IUD is encountered.

Boria (1975) found uterine incarceration rate of 6 among 608 Lippes loop users.

Abnormal site of perforations:

- Appendix:

Moddilly T.R. (1984) reported a case in whom the IUD was found wholly within the lumen of the appendix.

- Tubes: (Kim et al., 1962) had reported a case of Migration of lippees loop through the fallopian tube.

- Fibro myoma.: Esposito et al., (1973) reported a case of A Dalkon shield imbedded in a myoma.

Consequences of intra peritoneal IUD

Copper containing devices are more often embedded in the omentum, bound down by peritoneal adhesions or adherent to vascular or intestinal structure than inert plastic IUD, and thus require laparotomy for their removal in the majority of cases (McKanna & Mylotte, 1982).

Zakin et al., (1981) reviewed 41 patient, 11 of whome required bowel resection and further 5 needed closure of coecal perforation and or appendectomy.

Carson et al., (1981) reported only one case of symptomatic appendicitis during pregnancy caused by translocation of IUD.

Although translocation may have occurred at the time of insertion, appendicular penetration was almost certainly a later event (McWhinney et al., 1983).