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Management of the lost IUD

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Summary

Records of twenty-six patients who presented at the University College Hospital, Ibadan with 'lost' IUDs between 1 July 1980 and 30 April 1982 were analysed. During the 22-month study period there were 3476 IUD insertions. Routine evaluation showed that eighteen IUDs (69.2%) were intrauterine whilst eight IUDs (30.8%) were extrauterine. Seventeen (65.4%) intrauterine devices were recovered by routine D and C. Of the eight extrauterine devices, six (23.1%) were removed by laparoscopy, one (3.8%) was removed by laparotomy and one (3.8%) was removed by colpotomy. It is concluded that it is preferable for all extrauterine devices to be removed in order to discourage psychosomatic symptomatolgy commonly associated with forgotten devices.

Résumé

Nous avons analysé les dossiers de vingt-six patientes qui se sont présentées au centre hospitalier universitaire (U.C.H.) à Ibadan, ayant 'perdu' leurs dispositifs intrautérins entre le 1 juillet 1980 et le 30 avril 1982. Pendant les 22 mois, 3476 insertions de DIU ont été pratiquées. Par observation générale nous avons pu noter que dix-huit d'entre les dispositifs (donc 69.2%) étaient intrautérins tandis que les huit autres (donc 30.8%) étaient extrautérins. Il a été possible de resortir dix-sept dispositifs intra-utérins (donc 65.4%) par simple lavage utérin (D et C). Par contre, six des huit dispositifs extrautérins (donc 23.1%) ont été enlevés suite à une laparoscopie et il a fallu une laparotomie pour en enlever un autre (donc 3.8%). Le dernier (donc 3.8% encore) a exigé une calpotomie. Nous avons pu tirer la conclusion qu'il vaut mieux débrasser les patientes des dispositifs extrautérins afin d'éviter la symptomatologie psychosomatique associée à la'perte' des dispositifs.

Introduction

Failure of an IUD user to feel the strings of the device may be due to unrecognized complete expulsion, uterine perforation or alteration of the intrauterine position such that the strings of the device are withdrawn into the uterine cavity.

At the University College Hospital, Ibadan, the intrauterine device (IUD) is the most popular method of contraception. In 1982, 82.0% of new contraceptive acceptors opted for the IUD, whilst 15.1% preferred the oral contraceptive. Only 1.4% of patients had interval female sterilization.

However, when the average Nigerian IUD user fails to feel the strings of the device, she panicks and generally tends to bring the device into disrepute. The management of three consecutive cases of 'lost' IUD necessitating laparoscopy or laparotomy retrieval prompted this review of all cases of 'lost' IUDs at the Family Planning Clinic between 1 July 1980 and 30 April 1982 (a 22-month period). The objective of the analysis was to determine the sites and method of retrieval of the 'lost' IUDs.

Materials and methods

The subjects were patients attending the Family Planning Clinic of the University College Hospital, Ibadan complaining of inability to feel the IUD strings. All patients in whom the IUD strings were found *in situ* and those in whom complete expulsion was confirmed have been removed from this analysis.

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Following confirmation that the IUD strings were not visible per vagina, the patients were usually sent for a plain X-ray of the abdomen and pelvis. If the X-ray confirms the presence of the device in the pelvis, the patients are either sent for a hysterosalpingogram (Fig. 1) or a repeat plain X-ray of the pelvis after the insertion of a second device into the uterine cavity (Fig. 2). In the latter case, a lateral and anteroposterior radiograph is requested.

The mode of retrieval of the IUD depended on the location of the device. Hence the patients were subjected to dilation of the cervix, laparoscopy, laparotomy or colpotomy.

Results

During the 22-month study period, there were 3476 IUD insertions and twenty-six cases of 'lost' IUD. Of the twenty-six 'lost' IUDs, eighteen were intrauterine whilst eight were extrauterine.

The age distribution of the women with 'lost' IUD is shown in Table 1. The mean age was 36.6 years. The parity distribution is shown in Table 2. Majority of the patients (77.0%) had between three and six children whilst only one patient (3.8%) was nulliparous. The mean parity was 4.5.

The duration of IUD use ranged between 4 months and 20 years. As shown in Table 3, a high proportion of the patients (30.8%) had used the device for less than 2 years before reporting. The Lippes loop constituted 76.9% of missing IUDs seen in this series (Table 4). This is understandable since the former is the commonest IUD inserted at U.C.H., Ibadan.

The lost device was located in the uterus in eighteen patients (69.2%) whilst eight devices (30.8%) were found in the peritoneal cavity (Table 5). Of the eight extrauterine devices five (19.2%) were found in peritoneal adhesions in both adnexa whilst one each was recovered from the Pouch of Douglas, omentum and the uterine fundus.

All devices found within the uterine cavity were removed by dilatation and curettage. One patient required laparotomy and hysterotomy to remove a Lippes loop embedded in the myometrium. Six patients (23.7%) had a successful recovery of extrauterine devices by laparoscopy (Table 6). The extrauterine copper-T device embedded in omentum could

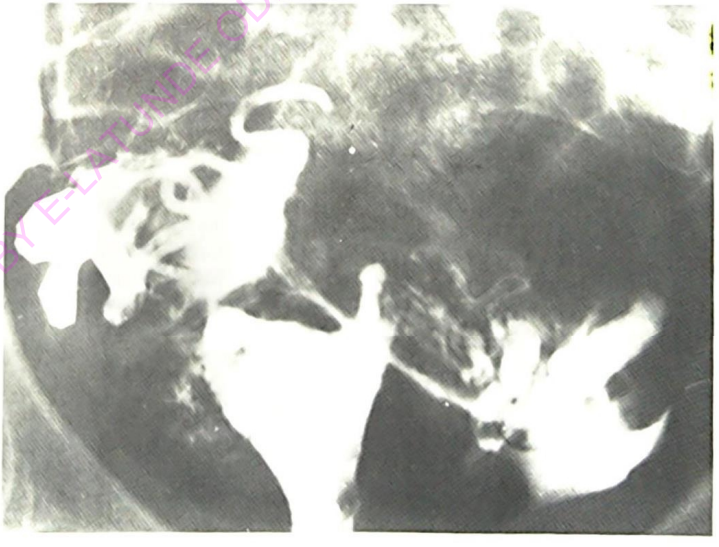

Fig. 1. Hysterosalpingogram of a patient with missing IUD. The device is extrauterine and located in the right adnexa.

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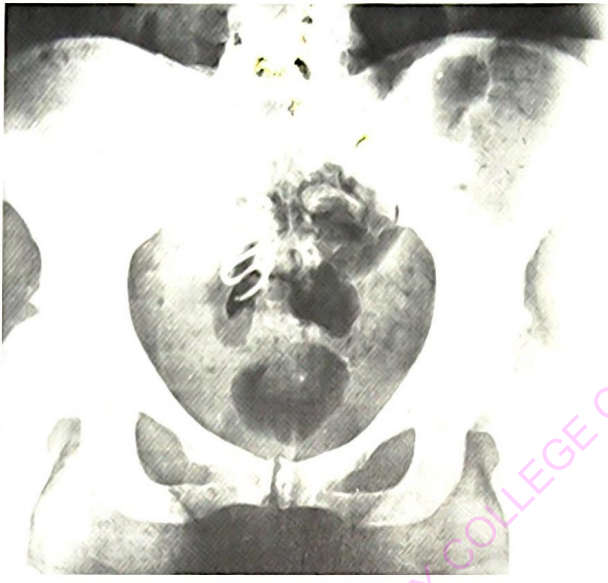

Fig. 2. Plain radiograph of the lower abdomen and pelvis in a patient with 'lost' IUD after insertion of a 'marker' IUD. Both IUDs are shown but separate, thus indicating that the 'lost' IUD was extrauterine. This was confirmed at laparoscopy.

Table 1. Age distribution of women with missing IUD

Age	No.	%
≤ 25	1	3.8
26–35	12	46.2
36–45	7	26.9
≥ 46	3	11.5
Not stated	3	11.5
Total	26	100.0

Mean age ± S.D. = 36.6 years ± 9.35.
Age range = 25–62 years.

Table 2. Parity distribution of women with missing IUD

Parity	No.	%
0	1	3.8
1–2	2	7.7
3–4	12	46.2
5–6	8	30.8
≥ 7	2	7.7
Not stated	1	3.8
Total	26	100.0

Mean parity = 4.5 ± 1.81.

Table 3. Duration of IUD use in women with missing IUD

Duration (months)	No.	%
≤ 24	8	30.8
25–48	5	19.2
49–72	1	3.8
73–96	1	3.8
≥ 97	2	7.7
Not known	9	34.6
Total	26	100.0

Table 4. Type of IUD used by women with missing tag

Type	No.	%
Lippes	20	76.9
Copper T	4	15.4
M-211	1	3.8
Saf-T Coil	1	3.8
Total	26	100.0

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Table 5. Site of recovery of missing IUD

Site	No.	%
Uterus		
Cavity	17	65.4
Partially within myometrium	1	3.8
Peritoneal cavity		
Left adnexa	3	11.5
Right adnexa	2	7.7
Pouch of Douglas	1	3.8
Omentum	1	3.8
Partially extruded through uterus	1	3.8
Total	26	100.0

Table 6. Mode of removal of missing IUD

Procedure	No.	%
D and C	17	65.4
Laparoscopy	6	23.1
Laparotomy alone	1	3.8
Laparotomy + hysterotomy	1	3.8
Colpotomy	1	3.8
Total	26	100.0

not be identified at laparoscopy and was later removed at exploratory laparotomy. In one patient (3.8%) the device was removed from the Pouch of Douglas by colpotomy. In this particular case, vaginal examination had revealed the strings of the IUD protruding from the posterior fornix. An attempt at removal had resulted in snapping of the strings. Hence a posterior colpotomy was undertaken and the IUD was easily removed.

All the patients, except three, were discharged home within a few hours of surgery. The patients who had laparotomy and one who had colpotomy were hospitalized for a period of 5–8 days. They all made an uneventful recovery.

Discussion

The differential diagnosis of a missing IUD includes unrecognized expulsion, retraction of the IUD strings as a result of device rotation or enlargement of the uterus, and perforation of the uterus by the device. The present study confirms the observations of others (Rimdustt & Mishell, 1968; Dhall, Dhall & Gupta, 1969; Shapiro, 1977; Valle, Sciarra & Freeman, 1977; Millen, Austen & Bernstein, 1978) that the missing IUD is *in utero* in majority of cases. It is, however, contrary to the finding of Ansari (1974) which showed that uterine perforation was the commonest cause of missing IUD. Generally, the estimated incidence of uterine perforation ranges between less than 1.2 and 8.7 per 1000 insertions (Tietze & Lewit, 1970). The exact incidence of uterine perforation at the U.C.H., Ibadan cannot be determined because of a high follow-up default rate of 32%.

Most uterine perforations are known to occur at the time of IUD insertion (Sobrero, 1971). However, none of the eight patients in this series with uterine perforation gave a history of difficulties at the time of insertion.

The age and parity distribution of the patients is, to a large extent, a reflection of the type of clientele seen at the Family Planning Clinic. The three patients over the age of 46 years presented with non-gynaecological complaints which they attributed to the forgotten IUD. In all three, the device was intrauterine.

The diagnosis of uterine perforation can be made by radiographic procedures with or without a marker such as a uterine sound, another IUD (Fig. 2) or radiopaque dye (Fig. 1). Other methods of locating the missing device include ultrasonography (Janssens, 1973; Jouppila, 1975) or hysteroscopy (Valle *et al.*, 1977). Simple sounding of the uterus can lead to identification of an intrauterine device by experienced physicians thus making the use of

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other sophisticated equipment unnecessary in majority of cases.

The clinical management of 'lost' IUD found in the uterine cavity is not controversial. Dilatation of the cervix and removal of the device by use of simple hooks, alligator forceps or ovum forceps is commonly practised. Rarely, laparotomy for surgical removal may have to be performed. Siegler and Kenmann (1976) and Valle *et al.* (1977) advocate removal under direct observation using hysteroscopy.

The management of the extrauterine IUDs, however, attracts some controversy. Whilst Soderstrom (1978) recommends that all intra-abdominal IUDs, symptomatic or asymptomatic, should be removed, Lippes (1978) recommends that these devices be allowed to remain in the periteoneal cavity as long as the user is asymptomatic on the grounds that the risks of surgery and post-operative complications are greater than the risks involved in leaving the IUD in place. There is, however, no controversy over the management of 'copper' containing or closed types of IUD. Whilst the former elicit intense tissue reaction and omental adhesion formation, the latter can cause bowel strangulation and intestinal obstruction (Tatum, 1975).

All the intra-abdominal IUDs in this series were removed either by laparoscopy, laparotomy or colpotomy. The author and his colleagues in the Family Planning Unit share the views of Soderstrom on the management of the extrauterine device. In addition, attention has to be paid to the Nigerian environment where psychosomatic symptoms are common and a retained and displaced IUD merely provides an excuse for bizarre symptomatology.

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