

## Intra Uterine Contraceptive Device (I.U.C.D) Advantages, Side Effects and Complications

Layla Abdul Amir  
Medical College, Babylon University

Abdul Ghany J. Dabbagh  
Medical College, Babylon University

### Abstract

A retrograde study of 1000 women in Hilla from 1985-1995 in the private clinic, Gyn & Obst. Hospital and family planning clinic in the hospital, from different occupations: doctors, engineer, pharmacist, lawyer, teacher, worker, farmer and house-wife. The age group for the patients varied from 17 to 48 years with a parity of 1-12, with one women who was nulliparous.

Advantages, complication and side-effects were reported, serious complications, i.e perforation, were treated by a surgeon.

### Intra Uterine Contraceptive Device

#### Introduction

Since early in this century, attempts have been made, sporadic at the outset but very intense since 1960 to design a device that when inserted into the uterus would prevent pregnancy without causing adverse effects.

One intriguing but unconfirmed story describes the first successful experience with an intrauterine device to have been insertion of small

stones into the uteri of camels to prevent pregnancy during long caravans.

At the end of 1976, according to one estimate, more than 15 million women through out the world were using the I.U.C.D.

#### Type of .U.C.D<sup>(10)</sup>.

- 1- Progesterone - releasing.
- 2- Copper T380 A.
- 3- Copper 7

#### Contraindications to Use of I.U.C.D.<sup>(9)</sup>

- 1- Known pelvic inflammatory disease.
- 2- Pregnancy.
- 3- Abnormal uterine bleeding.
- 4- Large or moderately large fibromyoma.
- 5- Recent or less than 6 weeks hysterotomy or cesarean section.
- 6- Congenital uterine abnormalities.
- 7- Severe cervicitis.

- 8- Severe cervical stenosis.
- 9- Blood dyscrasia and bleeding tendencies.
- 10- Gyn-malignancy.

#### Possible Contraindications

- 1- History of ectopic pregnancy.
- 2- Menstrual disorder.

#### Material and Methods

Most of the I.U.C.D. were inserted by the researcher after thorough examination of the user and good counseling before insertion.

Some women were referred to the researcher by other doctors. 10 patients were from Egypt, one from India, all devices were copper 7 and copper T.

1000 women were studied, who have had used I.U.C.D. with different jobs as mentioned above.

#### Insertion

Insertion of the device is best performed towards the end of the menstruation. I usually install on the last day of the cycle. So ensuring that an early pregnancy is not disturbed. Formerly it was advised that six weeks should elapse after child birth or abortion, but the merits of insertion after suction termination or spontaneous abortion have been proven<sup>(3)</sup>.

Preliminary pelvic examination and passage of a sound are essential, the aim being to place the device in the fundal region, so that it confirm

to the shape of the uterine cavity whilst avoiding risk of perforation.

The methods varies slightly with the devices chosen, when insertion is difficult paracervical block may be most helpful. In our study most of the I.U.C.D. were easily inserted except in few patients, pethidine I.V. or valium used before insertion, 2 patients need general anaesthesia because they were doctors.

#### Follow up

One must be sure that the patient can confirm the presence of the tail of the device on self examination after each period and at other times if she experiences discomfort and spotting. A second visit in 8-12 week after insertion is essential. The patient should report earlier if they lose the thread.

It is vital that patient should report at once if their menstruation is 14 days overdue. Should the pregnancy be confirmed it may be safest to remove the device if the string is accessible and confirm its presence by Ultra-Sound. The high incidence of ectopic gestation must be remembered. Ultra Sound may help to confirm intra uterine pregnancy.

#### Side Effects and complications of I.U.C.D. (In our study)

- a- Immediate (at the time of insertion).
- B- Late, few months up to 2 years.
- C- Remote, more than 2 years.

A- Immediate complications	number	percentage %
1- Pricking sensation of the cervix	15	1.5%
2- Bleeding from site of tanaculum	6	0.6%
3- Abdominal pain or cramps	20	2%
4- Backache and discomfort	20	2%
5- Nausea and Vomiting	5	0.5%
6- Syncope	6	0.6%
7- Expulsion , Reinsertion	8	0.8%
8- Epileptic fit	2	0.2%

B- Late Complication	number	percentage %
1- Bleeding	62	6.2%
2- Discharge	30	3%
3- Pelvic inflammatory disease P.I.D.	1	0.1%
4- Pregnancy —————>	30	3%
- ended in spontaneous abortion	15	1.5%
- continuation of pregnancy until term Fig 4,5	15	1.5%
5- Ectopic gestation Fig 3	15	1.5%
6- Embedding —————>	8	0.8%
- In the endometrium	5	0.5%
- In the myometrium	3	0.3%
7- Upward displacement of the thread	20	2%
8- Perforation Fig 1,2	5	0.5%
9- Dysparenia	6	0.6%
10- Obesity, depression, insomnia	7	0.7%
11- Pricking sensation of the husband	6	0.6%

C- Remote Complications:		Number	Percentage
1-	Endometrial Polyps (all were benign)	5	0.5%
2-	Myomas (figure 7)	4	0.4%
3-	Overian cyst (all benign)	6	0.6%
4-	Post menapousal bleeding	2	0.2%
5-	Secondary infertility (1 year after removaol)	10	1%

## Result

In our study of 1000 women who have had used I.U.C.D., the results shown in this table:-

Total Number 1000		Number	Percentage%
-	Women were happy, healthy and free from symptoms	850	85%
-	Women seeked and asked for proper time for replacements and requested re-insetion of new device after they have had another baby.	300	30%
-	Women suffered from major complications and these include —>	150	15%
*	Perforation	5	0.5%
*	Embedding	8	0.8%
*	Intrauterine pregnancy	30	3%
*	Ectopic gestation	15	1.5%
*	Bleeding	62	6.2%
*	Discharge	30	3%
-	Women suffered from minor complications	135	1.35%

In comparison with the result of other studies :-

I.U.C.D.		Our study	Other studies*
1-	Perforation	0.5%	0.1-0.5%
2-	Pregnancy (intra uterine)	3%	1.6-2.7%
3-	Ectopic gestation	1.5%	4-9%
4-	Expulsion	0.8%	8.5-14.8%
5-	Bleeding	6.2%	8.1-10.2%

\* Approval of NDA by US Food and drug administration granted Nov. 4, 1976 (Current Obstetric and Gynecologic Diagnosis and Treatment middle east edition 1980).

## Discussion

Most of the devices used were copper devices, they are smaller, produce no deformation of uterine cavity, have a lower expulsion rate and fewer side effects demanding removal.

They are particularly helpful for those who have never been pregnant<sup>(1)</sup>. Uterine perforation is likely to occur but if a T device is pushed down by the uterus, the stem can perforate the cervix<sup>(2)</sup>.

There is no evidence that device predispose to carcinoma in women nor there is a significant alteration in vaginal or cervical cytology.

No reported cases of death in our study from I.U.C.D. except two patients, one died from electrical shock and the other from advanced cancer of the breast.

## Conclusion

I.U.C.D. is safe and effective method of family planning. One inserted it continues to function until removed or expelled.

It is independent from the act of coitus and its effects are limited to genital tract<sup>(7)</sup>. Following removal of the device, fertility is unimpaired, 75% of the women conceiving within 6 months and 90% in 1 year<sup>(8)</sup>.

## References

- 1- Newton J. Ellas J. & Johanson A. (1974) J. Obst. & Br. Common 81, 389.
- 2- Tatum H.J. (1974) Am. J. Obst. & Gyn. 119, 884.
- 3- Newton J. Ellas J., Mac Ewan J. And Mann G. (1974) Br. Med J. lii, 447.
- 4- Shaila N.A., Lane M. And sobre-ro A.J. (1974) Am. J. Obst & Gyn. 120,110.
- 5- Tietze C. (1966) Am. J. Obst. & Gyn. 96, 1043.
- 6- Steven J.D. Fraser I.S. (1970) J. Obst. & Gyn. Br. Common 81, 181.
- 7- Tietze C., Lewit S. (1966) Family planning 55, 1.
- 8- KleinMan R.I. (1966) in Royal commission Report on Population-London I.P.P.F. Removal of Dalkon shield F.D. A.Drubull August 1983. 13, 14.
- 9- Current Obstetric and Gynecology Diagnosis and Treatment.
- 10- Danforth,s Hand book of Obstetrics and Gynecology.



Figure 1: Perforation of uterus L.U.D. seen outside the uterus



Figure 2: Perforation of uterus



Figure 3: Ectopic gestation.



Figure 4: Mid trimester miscarriage(fetus)





Figure 5: Mid trimester miscarriage (placenta with L.U.D.)

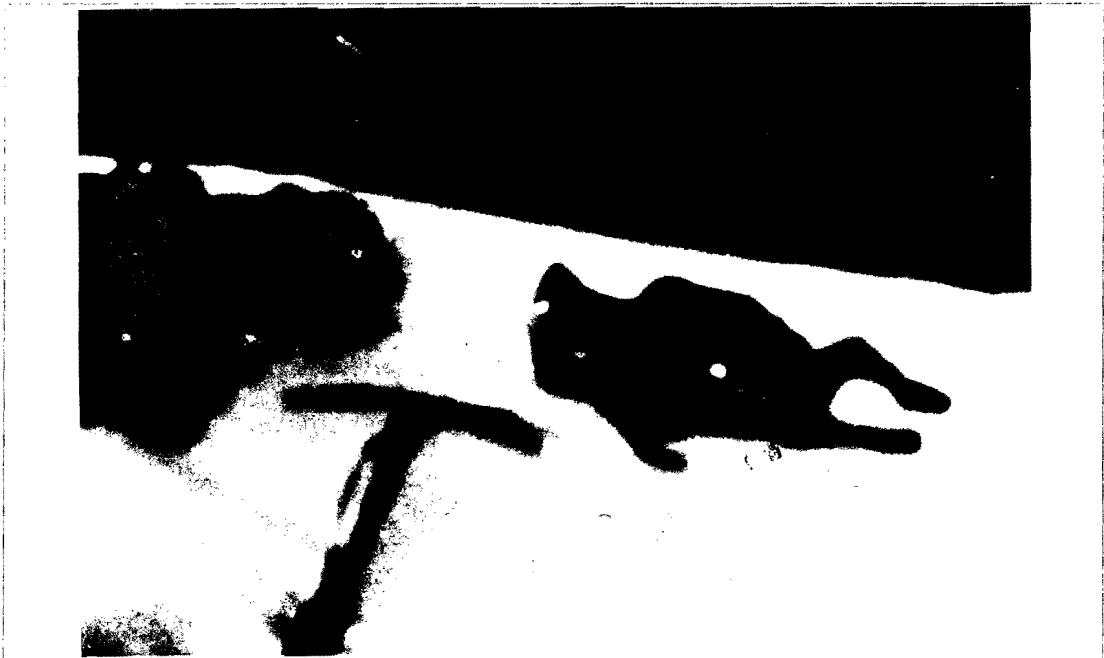


Figure 6: Anencephaly



Figure 7: myoma

## اللؤلؤ هذا الجسم الصغير بين الفائدة والضرر

عبد الغني الدباغ  
كلية الطب / جامعة بابل

ليلى عبد الامير  
كلية الطب / جامعة بابل

الحالات من قبل الباحثة مع بعض الحالات اللواتي احيلت اليها من قبل بعض الزميلات او محافظات اخرى . وكانت نتيجة البحث تدل على ان ٨٥٪ من النساء يتمتعن بصحة جيدة وخالية من المشاكل وان ٣٠٪ منهم استخدمن اللؤلؤ لعدة مرات بعد انتهاء مفعوله او بعد انجاب اطفال جدد . اما ١٥٪ من النساء فقد لوحظ وجود بعض المشاكل من خلال استعمالهن اللؤلؤ مثل النزف الرحمي، الافرازات المبلية الكثيرة ، الام البطن والظهر ، حمل خارج الرحم ، اكياس المبيض ، ثقب الرحم ، وقد تمت العمليات الجراحية بمساعدة وبمشاركة الجراح الاختصاصي .

الخلاصة  
اللؤلؤ هذا الجسم الصغير بين الفائدة والضرر ، في محافظة بابل تمت دراسة وافية لالف سيدة استخدم لهن اللؤلؤ كوسيلة لمنع الحمل من قبل الباحثان في العيادة الخاصة والعيادة الاستشارية ومركز تنظيم الاسرة من الفترة ١٩٨٥-١٩٩٥ ، وكانت اعمارهن تتراوح بين ١٧-٤٨ سنة وثلاث سيدات في عمر ما فوق الخمسين ومن جميع شرائح المجتمع ، الطبيبة ، المهندسة ، الصيدلانية ، المحامية ، المدرسة ، الموظفة ، الفلاحة وربة البيت . وكان عدد اطفالهن يتراوح بين ١-١٢ طفل وسيدة واحدة قبل الانجاب . لقد تم وضع اللؤلؤ لاغلبية