

INDICATIONS FOR REMOVAL OF INTRAUTERINE CONTRACEPTIVE DEVICES IN JOS, NORTH-CENTRAL NIGERIA

J.T Mutihir, I.A.O Ujah, P.F.K Uduagbamen, T. Iranloye

Department of Obstetrics and Gynaecology, Jos University Teaching Hospital, Jos, Plateau State, Nigeria.

ABSTRACT

Context: Intrauterine contraceptive devices (IUDs) are commonly used reversible methods of contraception. The CuT 380A is recommended for use for 10 years but common observation has shown that they are removed much earlier than the recommended duration of use.

Methodology: A retrospective study of all clients presenting at the family planning clinic of Jos University Teaching Hospital, between 1st January 1999 and 31st December 2004, for removal of their IUDs.

Major Outcomes/Results: The mean (\pm SD) age of the clients was 32.9 ± 6.9 years and mean parity was 4.0 ± 2.2 . All the women were married. The CuT 380A IUD was used in 99.3% of the cases. The mean duration of IUD use was 51.5 ± 51.0 months or 4.3 years only, and the commonest indication for removal was the desire for another pregnancy, which was recorded in 170 (30.7%) of the clients. This was followed by back pain in 70 (12.6%). Husbands' disapproval of the use of the device was recorded in 0.9% of the clients.

Conclusion: The duration of IUD use by clients in our centre was very short. The commonest indication for removal of the device was to restore fertility. Shorter lasting IUDs may need to be revisited if these will cost less for clients wishing to use the method only to postpone pregnancies. More effective counselling may be appropriate for alternative contraceptive methods for this category of clients instead of the IUDs currently being used.

Key words: Intrauterine contraceptive device, indications for removal, CuT 380A, Jos-Nigeria.

INTRODUCTION

The intrauterine contraceptive devices (IUDs) became available from 1909, when Dr. Richter of Waldenburg described the method¹. They have since been used throughout the world for more than three decades, and millions of women have found them to be effective, safe and convenient². More than 106 million women worldwide are using the devices, which are the second most commonly used family planning method, after the pills. They are the most commonly used reversible contraceptive method². The IUD is especially suitable for older parous women who wish to prevent further pregnancies but who are not ready to choose a permanent method of family planning.

Such women should be in stable relationships in which neither partner has any other sexual partners, and have no history of pelvic inflammatory disease or generally fall into three groups. The inert plastic devices such as the lipps loop could be left in situ for an indefinite period, the metal bearing devices ectopic pregnancy³. Intrauterine contraceptive devices exemplified by the CuT 380A for 10-12 years^{4,5}, and the hormone containing devices like the

progestasert for 1 year⁶. Common contraindications to the use of the IUDs have been identified as menorrhagia, dysmenorrhoea, a history of pelvic inflammatory disease, fibroids which distort the endometrial cavity, congenital abnormalities of the uterus, and pregnancy. Nulliparity is considered a relative contraindication to its use by many obstetricians and gynaecologists. IUDs are indicated in any woman who requests for the method, who has been adequately and appropriately counselled, and has no contraindication to its use. Properly trained doctors, midwives, and other health workers can insert the IUD. The IUDs can be inserted at any time of the menstrual cycle provided the health worker has reasonably established that the client is not pregnant. IUDs are now also inserted in the postpartum period (within 24 hours) and after spontaneous or medically induced first trimester abortion.

The removal of IUDs is usually a routine and uncomplicated procedure done at any time during the menstrual cycle. The intrauterine contraceptive device is expected to be removed at the expiration of the Device, or when the effective lifespan of the IUD has expired.

Correspondence. Dr.J.T..Mutihir
jtmutihir01@yahoo.co.uk

It is also removed at other times when the client wants to embark on another pregnancy, and requests for its removal. Other reasons have been for medical reasons such as acute Pelvic Inflammatory Disease (PID), endometrial/cervical malignancy, uterine perforation, partial expulsion, and excessive menstrual bleeding; or when she reaches the age of menopause.

The study was undertaken to determine our clients' reasons for discontinuation of IUD use and document the proportion of the indications for removal of the devices in our clients.

CLIENTS AND METHODS

This was a retrospective descriptive study of all clients who had their IUDs removed at the family planning clinic of the Jos University Teaching Hospital, Jos, Nigeria. The study period was between 1st January 1999 and 31st December 2004. The records of all clients who had their IUDs removed in the family planning clinic were retrieved and relevant information was extracted for analysis. The information obtained included clients' age, marital status, and parity; type of IUD, date of insertion, and removal, duration of use and the indication for removal of the IUD.

Statistical analysis was done with the help of Epi-Info 2002 statistical software.

RESULTS

A total of 533 Intra Uterine Devices were removed on request in our centre during the period of study. The mean (\pm SD) age of the clients was 32.9 ± 6.9 years. Four hundred and thirty-six (81.8%) of the women were of active reproductive age group, (20-39 years) Table 1.

The mean (\pm SD) parity was 4.0 ± 2.2 . Majority 453 (85%) of the women were of parity 2 and above. Grandmultiparous women constituted about 207 (38.8%) of the women who had the IUDs removed (Table 2). All the women were married. The CuT 380A was the commonest (99.3%) of the IUDs in use in our centre. Lippes loop constituted the remaining 0.7% of the other IUDs used in the study.

Table 3 showed that women with 1-4 living children accounted for 337 (63.2%) while those with 5 or more living children accounted for 196 (36.8%). Women with a higher number of living children were using the device for longer duration and this was also found to be statistically significant $p < 0.001$.

Table 1: Age distribution of the clients duration of IUD use (in months)

Table 1: Age distribution of the clients

Age group (years)	Number (%)
≤ 19	2 (0.3)
20-24	53 (9.9)
25-29	133 (25.0)
30-34	129 (24.2)
35-39	121 (22.7)
40-44	59 (11.1)
45-49	27 (5.1)
≥ 50	9 (1.7)
Total	533 (100.0)

(Range: 18-60; Mean = 32.9 ± 6.9)

Table 2: Distribution of the clients by parity

Parity	Number (%)
1	80 (15.0)
2 - 4	246 (46.2)
≥ 5	207 (38.8)
Total	533 (100.0)

(Range: 1-10; Mean = 4.0 ± 2.2)

Table 3: Distribution of the number of living children at the time of insertion of the intrauterine device

No of living children	No of clients (%)	Mean duration of IUD use (in months)
1 - 2	172 (32.2)	33.58 ± 34.1
3 - 4	165 (31.0)	53.82 ± 53.3
5 - 6	134 (25.1)	66.95 ± 60.9
7 - 8	47 (8.8)	62.56 ± 50.2
9 - 10	15 (2.9)	46.53 ± 37.5
Total	533 (100.0)	51.43 ± 51.0

(Range: 1-10; mean 3.8 ± 2.1 ; $p < 0.001$)

Table 4: Duration of use of IUD in clients studied

Duration in months	Number (%)
1-12	131 (24.6)
13-24	109 (20.5)
25-36	61 (11.4)
37-48	32 (6.0)
49-60	32 (6.0)
61-72	34 (6.4)
73-84	17 (3.2)
85-96	15 (2.8)
97-108	11 (2.1)
109-120	20 (3.7)
≥ 121	50 (9.4)
Not stated	21 (3.9)
Total	533 (100.0)

(Range: 1 to 240 months; Mean 51.4 ± 51.0 months {4.3 years})

By the end of the first year, 25.6% of the women had had the IUD removed, 68.5% by 5 years and 86.7% by 10 years. Fifty (9.4%) of the women had used the device even after the expiration time of 10 years. The mean duration of the use of the IUD in the clients was 51.4 ± 51.0 months or 4.3 years (Table 4). The commonest indication for IUD removal was the desire for pregnancy in 30.7%. Back pain was the indication for removal in 12.6%, vaginal discharge/infection/PID in 11.6%, expiration of the device in 9.4%, excessive menstrual loss in 4.7% and post-menopausal age in 2.5% (Table 5).

Table 5: The indications for the removal of the IUDs

<i>Indication for Removal</i>	<i>Number (%)</i>	<i>Mean duration of use In Months</i>
Desire for pregnancy	170 (30.7)	36.07 ± 28.9
Back Pain	70 (12.6)	64.60 ± 80.6
Vaginal discharge/Infection/ PID	64 (11.6)	34.40 ± 32.8
IUD has expired (> 10 years of use)	52 (9.4)	136.80 ± 55.8
Wants a change of method	51 (9.2)	46.76 ± 39.5
Wants re-insertion of another IUD	37 (6.7)	54.76 ± 44.3
Excessive menstrual bleeding	26 (4.7)	22.10 ± 21.2
Client needs rest from the IUD	24 (4.3)	40.33 ± 39.0
Inter-menstrual Bleeding	15 (2.7)	44.67 ± 56.3
Woman has reached menopause	14 (2.5)	101.00 ± 70.4
Partial expulsion of IUD	11 (2.0)	$.87 \pm 45.3$
Husband's rejection/disapproval	5 (0.9)	14.25 ± 22.6
Husband's death	5 (0.9)	58.00 ± 54.7
Hypertension	5 (0.9)	33.40 ± 32.9
Others	5 (0.9)	36.00 ± 0.0
Total	554*	

Key: PID = Pelvic Inflammatory Disease; IUD = intrauterine device; * Some clients had the IUD removed for more than one indication; Others include: missing IUD 2, cervical polyp 2, and Pilgrimage 1)

DISCUSSION

The mean age of the clients at the time the intrauterine devices were removed was 32.9 years. This is similar to the mean age of 31.7 years in women accepting Norplant implants⁶, and younger than the mean age of 36.4 years of women accepting female sterilization^{7,8} in the same centre. The mean parity (4.0) of the women was also much lower than that of women accepting female sterilization (8.0)⁷. The women had an average of 3.8 living children at the time of the insertion of the IUD, but this was higher (6.8 children) for those accepting female sterilization⁷, a permanent method of contraception.

The commonest indication for the removal of the IUD was the desire for another pregnancy in 28.9% of cases. The women used the device only for a mean period of 36.07 months (or 3 years). IUDs may be associated with disorders of the menstrual cycle such as irregular menstrual periods, menorrhagia or dysmenorrhoea. About 10-15% of copper containing IUD users have their IUD removed because of abnormal vaginal bleeding or spotting⁹. Increased menstrual bleeding and inter-menstrual spotting with or without pain accounted for 7.4% of the indications for the removal of the devices found in our study. This is in agreement with the rate of 4-15% in large multi-centre studies². Menstrual problems accounted for 7.4% of all removals. Older women and women of higher parity have been documented in other studies to have lower rates of removal for bleeding and pain^{10,11}. Counselling and support given to the women with bleeding and pain has been found to positively influence the rate of discontinuation of the IUDs¹². Bleeding problems were not prominent among the indications of the removal of the device in this study.

Pelvic inflammatory disease (PID) and vaginal discharge were responsible for 11.6% of all the removals of the IUDs in the study. These women used the method for an average of about 34.4 months before developing the problems and therefore requested for their removal. Infection and/or PID in other studies were reported to be 1.8%¹³. Women using IUDs are about twice as likely to develop PID compared to women using no contraception^{13,14}. The increased risk of PID is largely concentrated in the first few weeks of insertion and is due to poor infection prevention measures during insertion². The risk of developing PID with the IUD is attributable to the method of insertion of the IUD and subsequent exposure to sexually transmitted infections. PID attributable to infection at insertion is expected to manifest soon after the insertion, and removal if the IUD due to infection is expected to be early, or in the first year of insertion. The high rate of PID in this

study, and the fact that it occurred almost 3 years later suggests that most of these were probably due to subsequent exposure to sexually transmitted infections (STIs).

About 9.2% of the women had the device removed in order to change over to another method of contraception. The clients gave no reasons for wanting to change to another method of contraception. Another group of women (6.7%) had their IUDs removed in order to have another IUD of the same make inserted for no particular reason. Fifty (9.4%) of the women used the method for the period of 10 years or more. Fourteen, (2.5%) of the clients had reached menopause and therefore requested for the removal of the device, as it was no more useful to them. A few (14) clients were still using the device after the age of menopause.

Husbands surprisingly were the reason for removal of the IUDs in 10 (1.8%) clients. The clients claimed their husbands disapproved of the use of the method. The husbands of 0.9% of the clients had died and therefore the widows discontinued the use.

In conclusion, the mean duration of IUD use in Jos is only about 4 years. The women were using the IUDs mainly as a reversible method of contraception far less than half the expected prescribed duration. The commonest indication for the removal of the device was the desire for another pregnancy. Ineffective counselling about this family planning method may be responsible for the large number (about 29%) of women seeking for IUD removal just within 3 years for another pregnancy. Thus, effective counselling strategy should be developed, such that clients who may be desirous of early return to fertility would be offered another method of family planning such as the oral contraceptives, injectables or condoms.

REFERENCES

- 1. Narrative Historical Review.** In: Michael J. O'Dowd and Elliot E. Philipp (eds) *The History of Obstetrics and Gynaecology*. The Parthenon Publishing Group Ltd, Casterton Hall 2000: 1-40.
- 2. Trieman K, Liskin L, Kols A and Rinehart W. IUDs An Update.** Population Reports, Series B No. 6. Baltimore, School of Public Health, Population Information Program 1995: 1-34.
- 3. The Intrauterine Device.** ACOG Technical Bulletin: An Educational Aid to Obstetrician-Gynecologist 1992; 164: 1-4.
- 4. Population Council (PC).** Copper T 380A intrauterine device is effective for 10 years. [News Release] New York, PC, 1994: 3.
- 5. The TCU-380A (ParaGard) IUD may be left in place for up to 12 years.** www.plannedparenthood.org/bc/cchoices3.htm 1-66k
- 6. Aisien AO, Imade G, Sagay AS, Shobowale MO.** Safety and Acceptability of Norplant Implants in Jos, Northern Nigeria. *Trop J Obstet Gynaecol* 2005; 21(2): 95-99.
- 7. Aisien AO, Ujah IAO, Mutihir JT, Guful F.** Fourteen years' experience in Voluntary Female Sterilization through minilaparotomy in Jos, Nigeria. *Contraception* 1999; 60: 249-252.
- 8. Mutihir JT, Aisien AO, Ujah IAO, Ekwempu CC.** Anaesthetic experience in two decades of female sterilization in Jos, Northern Nigeria. Book of Abstracts of the 45th Annual Conference of the West African College of Surgeons, in Cotonou, Benin Republic; 5-12th February 2005: 69-70.
- 9. Stewart GK.** *Intrauterine Devices (IUDs). In: Contraceptive Technology, 17th revised edition.* Ardent Media, Inc. New York, 1998: 511-543.
- 10. Sheppard BL.** Endometrial morphological changes in IUD users: a review. *Contraception* 1987; 36(1): 1-10.
- 11. Kozuh-Novak M, Andolsek L, Balogh SA, Waszak CS.** Long term use of intrauterine devices. *IPPF Medical Bulletin*, 1988; 22(1): 1-3
- 12. Bernard RP.** IUD performance patterns a 1970 world review. *Int J Gynecol Obstet* 1970; 8(6): 926-940.
- 13. Buchan H, Villad-Makintosh L, Vessey M, Yeates D, McPherson K.** Epidemiology of pelvic inflammatory disease in parous women with special reference to intrauterine device use. *Br J Obstet Gynaecol* 1990; 97: 780-788.
- 14. WHO Special programme of research, development and training in human reproduction. Task Force on Intrauterine devices. PID associated with fertility regulating agents.** *Contraception* 1984; 30(1): 1-21.