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Original Research Article

A cross sectional knowledge, attitude and practice study for copper IUCD in a tertiary care centre in New Delhi

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ABSTRACT

Background: The postpartum period is one of the most sensitive period in a woman's life. To prevent unwanted pregnancies and promote optimal interpregnancy interval, effective contraception should be discussed and offered at that time. The aim of this study was to assess the knowledge, attitude and practice of postpartum intrauterine device in antenatal patients attending OPD.
Methods: A cross sectional, hospital based descriptive study was conducted from the month of September to November 2021 in the department of Obstetrics and Gynaecology in Maulana Azad Medical College, New Delhi. The total number of patients recruited in the study were 750. A total of 600 patients delivered and 150 were lost to follow up. The antenatal patients attending the OPD were provided with a structured questionnaire to assess the knowledge and attitude to copper IUCD usage.
Results: Most of the patients belonged to the age group of 20-25 years. The majority of the patients were Illiterate and multigravidas (65%). Around 71% of the patients attending OPD were aware of Copper IUCD as a method of contraception. Whereas only 31% of patients were convinced of the safety of Copper IUCD. About 62% were apprehensive to use Copper IUCD. Of the 600 patients delivered in our hospital, PPIUCD was inserted in 216 (36%) patients.
Conclusions: The study reveals good knowledge and favorable attitude of patients for PPIUCD as method of contraception. But it also depicts a low acceptance and usage of the same. The various reasons for this are mainly illiteracy, ignorance, social and religious taboos etc. Hence it is suggested that community education, addressing unwarranted fears of patients, incorporation of family planning in maternal and child health services etc. should be done to improve the acceptance and thereby usage of PPIUCD in patients.

Keywords: Multiparous, Postpartum, PPIUCD

INTRODUCTION

The history of Copper IUCD dates back to early 1900s where they were made from materials such as steel/silkworm gut.[1] In the early 1960s, inert plastic IUCDs were developed.[2] Copper was added to IUCD in 1970s , which increased the efficacy, helped in reducing the size and thereby improving compliance of the patient.[3] IUCD use is high (14.5%) in less developed countries and low (7.6%) in more developed countries.[4] Copper T 380A has a plastic T shaped core with copper placed around vertical stems an horizontal stems. The total surface area of copper is 380 mm.[2,5] Copper prevents fertilization through cytotoxic inflammatory reactions, that is spermicidal. It impairs the motility, migration, quality and viability of sperms.[6] Copper ions also causes inflammatory changes in endometrium.[7]

The aim of this study was to assess the knowledge, attitude and practice of postpartum intrauterine device in antenatal patients attending OPD.

METHODS

A cross sectional, hospital based descriptive study was conducted from the month of September to November 2021 in the department of Obstetrics and Gynaecology in Maulana Azad Medical College, New Delhi. The total number of patients recruited in the study were 750. A total of 600 patients delivered and 150 were lost to follow up. The antenatal patients attending the OPD were provided with a structured questionnaire to assess the knowledge and attitude to copper IUCD usage. The questionnaire included demographic details of the antenatal patients attending OPD. The knowledge and attitude of patients towards Copper T usage was assessed via this questionnaire. Finally, the practice i.e. the acceptance and insertion of Copper T post-delivery was evaluated and noted.

Inclusion criteria

All antenatal females attending the OPD of Department of Obstetrics and Gynaecology, who consented for the study were included.

Exclusion criteria

Exclusion criteria were patient not willing for Copper IUCD insertion, seriously ill (coexisting medical illness), Known uterine anomaly, chronic PID, gynaecological malignancy, Wilson's disease or allergic reaction to copper, post PPH in current pregnancy, prolonged PROM >16 hours, severe anaemia.

Statistical analysis

The data collected over a period of 3 months was compiled in MS Excel and analyzed for accuracy. Modified Chi Square test was the statistical test of analysis in the current study. A p-value <0.05 was considered significant.

RESULTS

A total of 750 antenatal patients were assessed in the ANC OPD. Out of these, 600 patients delivered and 150 were lost to follow-up.

Most of the patients belonged to the age group of 20-25 years. The majority of the patients attending OPD were Illiterate and constituted almost half of the total patient load. The patients were mostly multigravidas (65%) (Table 1).

Around 71% of the patients attending OPD were aware of Copper IUCD as a method of contraception. Whereas only 31% of patients were convinced of the safety of Copper IUCD. Majority of the patients were aware of the usage of Copper T intra-caesarean (Table 2).

Table 1: Demographic profile of patients.

		No. of participants(n= 600)	% of participants
Age		78	13
	20-25 years	285	47.5
	25-30 years	195	32.5
	>30 years	42	7
Education	Illiterate	276	46
	Primary school	228	38
	Up to secondary school	78	13
	Graduate	18	3
Parity	Primigravida	210	35
	Multigravida	390	65

Among all the patients attending the antenatal OPD, about 62% were apprehensive to use Copper IUCD. Around 42% believed in myths such as Copper T migrating to brain or heart. 37% even had the impression of hampering of next pregnancy even after removal of Copper T (Table 3).

Out of the 600 patients delivered in our hospital, PPIUCD was inserted in 216 (36%) patients. The age group most compliant for Copper T insertion was 25-30 years. The major proportion of patients were those who had studied up to secondary school and graduates. Multigravida patients were more willing for insertion of PPIUCD (Table 4).

Table 2: Knowledge of contraception.

	True (%)	False (%)	Don't know (%)
Contraception is very important for maternal health	294 (49)	96 (16)	210 (35)
Copper T is a method of contraception	426 (71)	21 (3.5)	155 (25.5)
Breast feeding for 6 months is veryeffective for contraception	138 (23)	72 (12)	390 (65)
Dangerous for mother if she conceives immediately after delivery	258 (43)	102 (17)	240 (40)
Copper T has no harmful effects on breast feeding baby	174 (29)	204 (34)	222 (37)
Copper T is a safe choice for contraception	186 (31)	348 (58)	66 (11)
Copper T can be used after caesarean section	480 (80)	48 (8%)	72 (12)

Table 3: Attitude for PPIUCD.

	True	False	Not sure
Copper T will not suit me	372(62%)	150(25%)	78(13%)
Copper T will cause excessive pain	279(46.5%)	78(13%)	243(40.5%)
Copper T will lead to a lot of bleeding	306(51%)	96(16%)	198(33%)
Copper T will perforate the uterus and reach the heart or brain	252(42%)	258(43%)	150(15%)
Copper T will cause discomfort during sexual Intercourse	150(25%)	78(13%)	372(62%)
Copper T will hamper next pregnancy even afterremoval	222(37%)	78(13%)	300(50%)

Table 4: Practice (usage) of PPIUCD.

		PPIUCD used (n= 216) (%)	PPIUCD not used (n=384) (%)	P value
Age				
	<20 years	3 (1.39)	75 (19.53)	<0.0001
	20- 25 years	78 (36.11)	207 (53.90)	
	25- 30 years	108 (50)	87 (22.66)	
	>30 years	27 (12.5)	15 (3.91)	
Education				
	Illiterate	66 (30.56)	210 (54.68)	<0.0001
	Primary school	78 (36.11)	150 (39.06)	0.4752
	Up to secondary school	57 (26.39)	21 (5.47)	<0.0001
	Graduate	15 (6.9)	3 (0.78)	<0.0001
Parity				
	Primigravida	38 (17.59)	142 (36.98)	<0.0001
	Multigravida	178 (82.41)	212 (55.21)	

DISCUSSION

The present study was a descriptive, cross sectional, hospital based study conducted among antenatal patients attending the OPD. The study aimed to assess the knowledge, attitude and practice of PPIUCD among pregnant patients. In the present study 36% of antenatal women used PPIUCD. Contrary to this only 16.2% and 19% patients used Copper IUCD in the studies conducted byMalhan et al and Patnaik et al respectively.[8,9] This may be due to illiteracy and the myths surrounding PPIUCD. In a study conducted by Ajay et al it was observed that almost 98% of married females in Uttar Pradesh had knowledge of PPIUCD.[10] In another KAP study done in rural Haryana by Saluja et al, the usage of contraceptive methods was 59.2%, in which female sterilization was the most commonly chosen in 46% offemales.[11] Here we observe that the preference for definitive methods was more as compared tospacing methods i.e. PPIUCD.

In a study conducted by Kumar et al in urban slums of Lucknow, about 53.4% used copper IUCD as method of contraception. The usage was maximum among illiterates andmultigravidas.[12] In a cross sectional study conducted by Bendhari et al in an urban slum area in Maharashtra, the prevalence of contraception was 70.25% with more acceptors of terminalmethods than spacing methods.[13] In a study conducted by Fayaz et al in a Government Medical College in Jammu and Kashmir, majority (46%) females were in favour of barrier contraceptives compared to a meagre 11% for Copper IUCD.[14] Similar observations were made by Bamniya et al, in a tertiary care hospital in Gujarat with about 30% patients giving consent for Copper IUCD insertion.[15] Although the majority were in favour of barrier methods of contraception.

CONCLUSION

The study reveals good knowledge and favorable attitude of patients for PPIUCD as method of contraception. But it also depicts a low acceptance and usage of the same. The various reasons for this are mainly illiteracy, ignorance, social and religious taboos etc. Hence it is suggested that community education, Addressing unwarranted fears of patients, Incorporation of family planning in maternal and child health services etc. should be done to improve the acceptance and thereby usage of PPIUCD in patients.

This study has some limitations. A more extensive study with a larger sample size could have been carried out, but could not be done due to shortage of time and manpower.

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