



PPIUCD INSERTION BY LONG INSERTER VERSUS WITH THE HELP OF KELLY'S FORCEPS

Obstetrics & Gynecology

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ABSTRACT

Aim: To compare ease of insertion, visibility of strings and continuation rate of PPIUCD insertion by Long inserter versus with the help of Kelly's forceps

Methods: The present prospective observational study conducted in Department of Obstetrics and Gynaecology, during September 2017-June 2019. We enrolled 100 women, 50 underwent insertion with the help of Kelly's forceps (Group A) and the other 50 with Long inserter PPIUCD (Group B).

Result: High fundal placement was achieved with long inserter. There was no perforation and decreased infection rate among the users with no increase in incidence of side effects and expulsion. Among 50 insertion, 1 women (2%) had partial expulsion, 2 women (4%) had complete expulsion and 1 women (2%) got PPIUCD removed on request.

Conclusion: The dedicated long inserter PPIUCD was found to be safe, with high acceptability among the participants and providers. Study revealed the reduced risk of infection and expulsion, providers also reported increased convenience in insertion compared to standard PPIUCD insertion techniques.

KEYWORDS

PPIUCD, Long inserter, Kellys forcep, String visibility, Expulsion rate

INTRODUCTION:

Contraception is a way of preventing unintended pregnancy. Women are currently using intrauterine contraception as a long-term contraceptive, reversible, safe and economical, easily available, require minimal motivation, supervision, and maintenance, and do not interfere with breast-feeding, highly effective, does not affect fertility, and pregnancy is possible after it is removed¹.

Because standard IUCD inserters are too short to reach the postpartum uterine fundus, physicians must utilize Kelly's forceps, which necessitates removing the IUCD from the inserter sleeve, placing it at the tip of the Kelly's forceps, and then inserting it into the uterus. This cannot be accomplished using the "no touch approach." To solve this, the PPIUCD Long Inserter was created, which does not require forceps for insertion and comes preloaded, decreasing the possibility of contamination and damage to Copper T^{2,3}.

It is made from flexible silastic and can accommodate the shape of post partum uterus. Long insertion sleeve ensures fundal placement of IUCD further reducing the risk of expulsion and facilitating insertion¹. It also has a longer string than the standard IUCD, so the problem of non-visibility of string will not be there, also perceiving thread ensures patient copper T presence. This study was done to compare ease of insertion, visibility of strings and continuation rate of PPIUCD insertion by Long inserter versus with the help of Kelly's forceps.

MATERIALS AND METHODS:

The present prospective observational study conducted in Department of Obstetrics and Gynaecology, during September 2017-June 2019. We enrolled 100 women, 50 underwent insertion with the help of Kelly's forceps (Group A) and the other 50 with Long inserter PPIUCD (Group B).

INCLUSION CRITERIA

- All women of age ≥ 18 years and have no contraindication for IUCD insertion.
- Willing to visit hospital for regular follow up

EXCLUSION CRITERIA

- Uterine anomalies (e.g. Mullerian anomalies)
- Unresolved PPH
- Chorioamnionitis or puerperal sepsis
- Prolonged leaking PV > 18 hrs
- After 48hrs of delivery
- Patients in Medical Eligibility Criteria (MEC) Category 3 and 4⁽²⁾

The selected women were screened according to the inclusion and exclusion criteria and again explained about PPIUCD insertion before

carrying out the procedure. Written informed consent was taken from women willing to participate in the study and for the follow up visits at 2 weeks, 6 weeks, 3 months, 6 months or earlier in case of any adverse events. At each follow up women were asked for any specific complaint, pain abdomen assessed by VAS scale, dysmenorrhea, dyspareunia, vaginal discharge/infection, bleeding per vagina, menstrual disturbances, PABC scores, visibility of strings, history of expulsion. If patient wants removal, reason for removal was noted⁽³⁾.

STATISTICAL ANALYSIS:

It was done using SPSS software version 24. Chi square test was used to find out the significant difference among the groups and $p < 0.05$ was considered statistically significant.

RESULT:

During study period, majority of the women belonged to age group of 20-25 years. All participants had atleast one living child with 44% vaginal delivery and only 12% assisted vaginal delivery. Most of the women (54%) were not using any contraceptive previously and acknowledged doctor/health worker as major source of knowledge regarding copper T and others got to know about it from TV/internet, friends and relatives.

Number of attempts required was significantly more in group A as compared to group B as $p < 0.05$ (table 1).

Table 1: Number of attempts required to insert PPIUCD among the groups

No. of Attempts	Group A (Kelly's Forceps)		Group B (Long inserter PPIUCD)		Chi square	p value
	n=50	%	n=50	%		
1	39	78	48	96	5.11	0.04*
2	7	14	2	4		
>2	4	8	0	0		

*: statistically significant

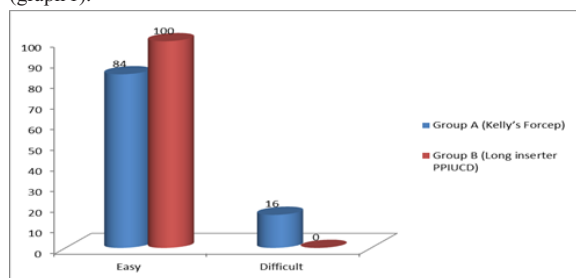
In our study IUCD was partially removed in one (2.08%) women at 6th month and completely removed in one (2%) women at 6th week and in one (2.08%) women at 6th month follow up also it was removed on request in one women (2.04%) due to family pressure. Strings visibility being the important factor for both provider and the patient was taken care. String was visible in 80% at the time of insertion and at 6 weeks follow up after complete involution of uterus it was visible in 84%. In 93% of the women string was visible after 6 months of follow up (table 2).

Table 2: Comparison of IUCD Status and visibility of string among the groups at last followup

IUCD Status	Group A (Kelly's Forceps)		Group B (Long inserter PPIUCD)		Chi square	p value
	n=50	%	n=50	%		
Partial Expulsion	1	2	1	2	2.58	0.19
Complete Expulsion/Removed	4	8	2	4		
Removed on Request	2	4	1	2		
Strings Visibility	n=46	%	n=48	%		
Visible	40	86.96	45	93.75	0.98	0.57
Not Visible	6	13.04	3	6.25		

Bleeding related problems is the most common side effects associated with IUCD insertion regardless of method of insertion and timing of insertion. In the first 6 weeks post partum, changes are masked by usual irregular spotting and pain associated with uterine involution. In our study during follow up, most common complaint was bleeding per vaginum, at 6 th month follow up bleeding was reported in 12% and pelvic pain reported in 4%.

100% health care providers reported easy insertion of PPIUCD with long inserter, 96% insertion done in single attempt. The women satisfaction questionnaire revealed that 96% were satisfied with the counseling and the decision to get PPIUCD and would also recommend it as the method of contraception to family and friends (graph 1).

**Graph 1: Ease of insertion among the groups****DISCUSSION:**

In the study, the long inserter PPIUCD functioned well with 96% satisfaction rate among the subjects, easy insertion, less attempts required by providers to insert. Counseling and training of the care provider (doctors, nurses and health staffs) of a hospital form integral part in the success. It was observed that people were aware of methods of contraception but were not using them due to a misconception⁽⁴⁾.

Expulsion is a major concern with PPIUCD insertion but study shows that proper placement of device with correct technique and specialized training of service provider has reduced the expulsion rates significantly. Sharad Singh et al⁽⁵⁾ in 80 women conducted a study between March and July 2015 among 80 participants, concluded the IUCD was completely expelled in only 6 cases (7.5%), partially expelled in 8 cases (10.0%), and removed in 5 cases (6.3%) for social and clinical reasons. Of the 4 insertions reported by providers to be difficult, 3 resulted in complete expulsion and 1 in a partial expulsion.

Major cause of PPIUCD removal was increased bleeding related complaints, other was pain abdomen, similar findings were reported by Somila Xess et al⁽⁶⁾ in 2017, conducted a study in 220 women and concluded that during follow up there was 5.5% removal at 3 months with bleeding as main reason of removal in 38.4%, others complaint of pain abdomen (23.1%) discharge (15.3%) and family pressure (23.1%).

Missing strings is one of the major cause of concern and apprehension both in acceptor and provider but this issue was also resolved with long strings in dedicated PPIUCD

CONCLUSION:

Overall, among all long-acting reversible contraceptives, immediate postpartum IUCD is a very safe and effective technique. It was easier and took less attempts to use the long inserter for PPIUCD insertion, and it has the added benefit of lengthy strings. It may be inserted

without touching it, which reduces the danger of infection. In comparison to traditional techniques, the study found no increase in the incidence of any problems, partial or full expulsion.

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