

# Long Acting Reversible Contraception After Surgical Abortion With High Rate of Continuation and Patients' Satisfaction

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## Abstract

**Objective:** In Italy the percentage of repeated abortions is about 24%. Long-acting reversible contraceptive (LARC) methods are currently considered the most effective mode worldwide and are associated with the highest rate of 12-months continuation, with a potential reported reduction of recurrent abortions. The aim of this study was evaluating LARC continuation and the patients' satisfaction at two and twelve months in use.

**Materials and methods:** A longitudinal observational study collected women who underwent surgical abortion and placed a LARC method at the time of abortion in our hospital.

**Results:** Totally 828 women underwent surgical abortion during the study period from which 434 choose a LARC method. After two months the rate of continuation of 52mg LNG IUD was 100% in women presenting for follow-up. Continuation rate at one year was approximately 70% for all LARC methods. More than 70% of women declared themselves satisfied or very satisfied with all LARC methods.

**Conclusion:** Despite a high rate of patient loss at follow-up, LARC methods showed a high rate of continuation at two and twelve months, with a high degree of patients' satisfaction.

**Keywords:** Abortion; Contraception; Long-Acting Reversible Contraception

## Introduction

Repeated abortions in Italy amount to about 24% of all abortions (1). Long-acting reversible contraceptive (LARC) methods are currently considered the most effective and those associated with the highest rates of 12-months continuation. Previous data shows how the

adoption of a LARC methods at the time of abortion relates to a lower risk of abortion recurrence (2, 3).

An adequate and dedicate contraceptive counselling seems to allow a higher rate of LARC choice as suggested by the World Health Organization (4-6).

In a previous study (5), we highlighted the importance of contraceptive counselling together with the availability of LARC at purchase price to allow a higher rate of LARC insertion after surgical abortion.

This report has the aim to evaluate two- and

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twelve-months continuation and satisfaction rate of women who started a LARC method at the time of abortion.

### Materials and methods

In the Department of Obstetrics and Gynaecology of Pesenti-Fenaroli Hospital, in Alzano Lombardo, Bergamo, Italy, the percentage of repeated voluntary abortion was about 28% at the beginning of the study, and now is reduced to 24% in line with Italian incidence (1).

A longitudinal observational study enrolled all women who underwent surgical abortion and who had a LARC method inserted at the time of abortion in our hospital, with the aim of evaluating LARC continuation and the patients' satisfaction at two- and twelve-months.

The study was approved by the Hospital ethical board (n.0014350,30/04/2013).

A dedicated and adequate contraceptive counselling was offered to all women requiring abortion. All LARC methods were available in our hospital, included copper intrauterine device (Cu-IUD), levonogestrel (LNG), intrauterine system (IUS) and etonogestrel subdermal implant.

If the patient required a LARC, this was inserted at the time of abortion. Insertion of LARC methods at this time was supposed to allow a lower patient discomfort and to ensure immediate high efficacy, as also literature highlights (7, 8). In case of intrauterine contraception, an ultrasound confirmed the correct position immediately after insertion.

Exclusion criteria were the presence of psychiatric

diseases or of other conditions that reduced the ability of the women to understand and want, or the woman refusal to give her consent.

Two months and one year later, we performed a follow-up to evaluate the continuation rate and the degree of patient satisfaction.

All data of these patients were collected once an informed consent was obtained.

The data are presented as percentage and means and standard deviation.

### Results

Totally 828 women underwent surgical abortion during the study period. After doing a contraceptive counselling 434 women chose a LARC method, which was inserted at the time of abortion.

The women's characteristics were reported in table 1. About half of the patients were Italian. 35% of women choosing LARC methods reported one more previous abortion. Table-1 also reported LARC continuation after two- and twelve-months. After two months the rate of continuation of 52mg LNG IUD was 100% in women presenting for follow-up. Continuation rate at one year was approximately 70% for all the methods. Unfortunately, we reported a high rate of patient lost at follow-up (Table 1).

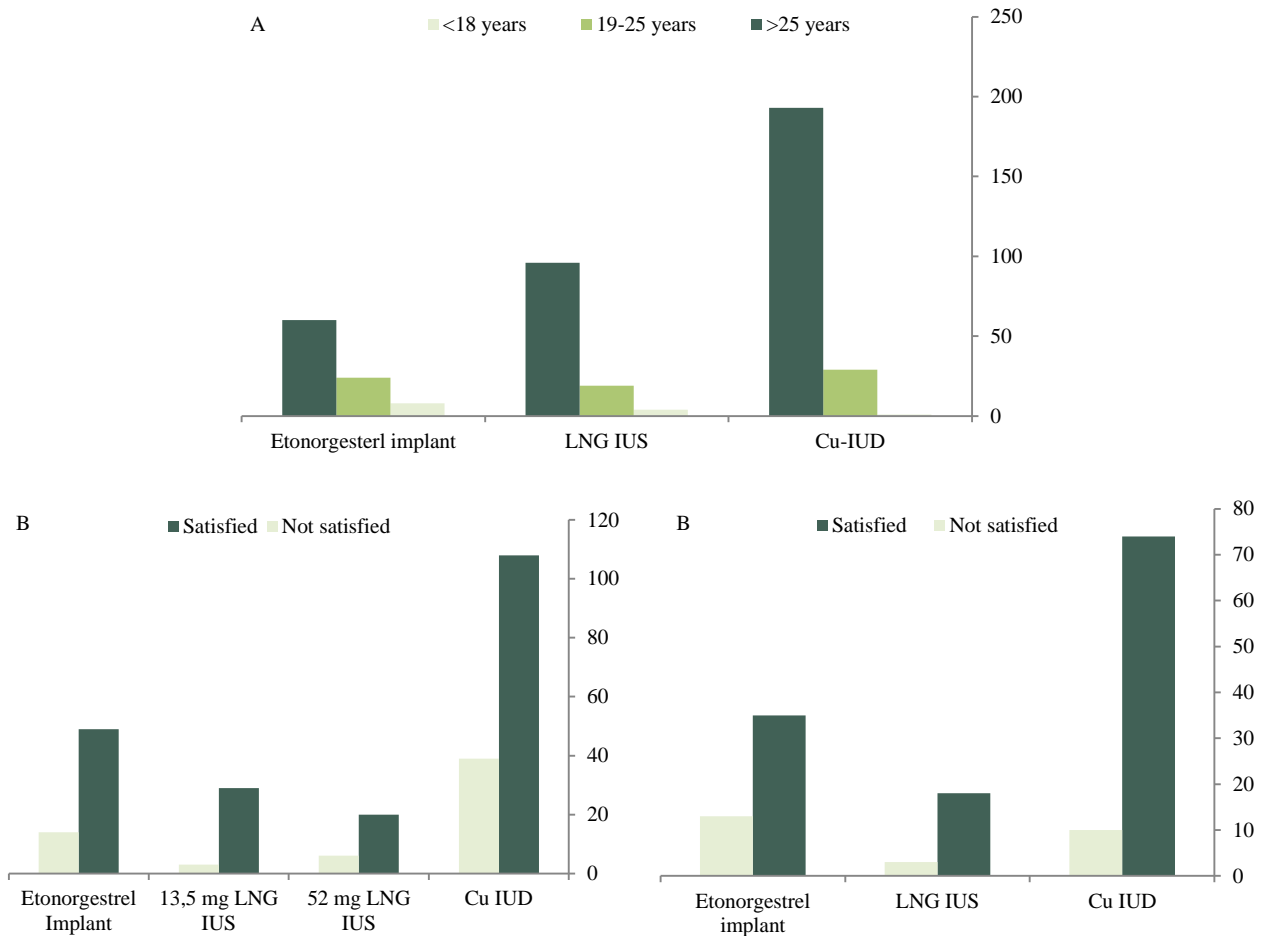
Figure 1A stratifies the LARC choice based on patient age. LARC method choice was higher among women older than 25 years. The contraceptive implant was the most frequently chosen LARC method among adolescent (18 years-old or younger).

Figure 1B stratifies women satisfaction rate on LARC methods.

**Table 1:** Population characteristics LARC continuation after two and twelve months of utilization

Patient Characteristics LARC n. 434	Number	Percentage		
First abortion	282	65.0		
Recurrent abortion	152	35.0		
Patient age (years) <21	22	5.1		
21-30	149	34.3		
31-40	228	52.5		
>40	39	9.0		
Nulliparity	123	28.3		
Italian nationality	168	38.7		
Larc Continuation	Two Months		One Year	
	Presented at follow-up (n /%)	LARC continuation (n /%)	Presented at follow-up (n %)	LARC continuation (n /%)
Cu IUD (n. 199)	147 (73.9)	119 (80.9%)	103 (51.8)	72 (69.9)
LNG IUD (n. 85)	55 (64.7)	51(92.7%)	26 (30.6)	19 (73.1)
ENG implant (n. 83)	61	58 (95.1%)	45 (54.2)	33 (73.3)

LARC: Long Acting Reversible Contraception IUD: intrauterine device, LNG: levonorgestrel, ENG: etonogestrel



**Figure 1:** A: LARC choice based on patient age, B: Patients' satisfaction of each different LARC methods after 2 and 12 months

More than 70% of women declared themselves satisfied or very satisfied with all LARC methods, both at two- and twelve-months follow-up.

The reported causes of discontinuation were respectively as below:

- Cu IUD: 3 expulsions, 2 pregnancies, 9 cases of pain associated to abnormal uterine bleeding (AUB), one case of recurrent vaginitis and 13 dislocations.
- 52 mg LNG-IUS: 2 dislocations, one AUB, one chronic pain associated to recurrent vaginitis.
- 13.5 mg LNG-IUS: 3 dislocations, one hemicrania, 2 AUB.
- Subdermal implant: 8 AUB, one case of severe acne, one case of excessive gain weight, two cases of pregnancy desire.

### Discussion

Contraception is the only strategy to reduce induced abortion, moreover recurrent ones (3). LARC are

reported to be the most effective contraceptive methods, and those associated with the longest continuation (3). Moreover, LARC insertion during abortion is safe as compared to insertion in other conditions (9, 10).

Our data showed patients' LARC continuation and satisfaction rates after abortion in a single centre. We reported a high LARC request after abortion, in 52.4% of patient, thanks to a dedicate contraceptive counselling and to the availability of methods for insertion at the time of abortion at low cost, as reported in a previous study (5).

Here we found a 70% of LARC continuation at 12 months, with a high degree of patients' satisfaction.

The more frequent reasons of discontinuation were abnormal uterine bleeding in 20 women (4.6%) and intrauterine contraceptives dislocation in 17 (3.9%). Unfortunately, we reported two (0.5%) cases of unplanned pregnancies, both with Cu-IUD. Two patients required removal due to pregnancy desire.

Our data confirmed that LARC insertion after abortion is safe (9, 10) and associated with high rate of continuation and satisfaction at 12 months.

We highlight the need to implement the provision of LARC methods at the time of abortion, as a practice associated with high continuation rates and with high degree of satisfaction.

The analysis of our data highlights a lower choice of LARC methods among adolescent compared to older women. We therefore need to try to increase the choice of LARC methods among adolescents, as safe and effective methods (9).

This report is a continuation of a previous study (5), in which we confirmed high rate of LARC choice when an adequate counselling is offered and methods available for immediate insertion. In this part of the study, we highlight high rate of continuation of LARC methods, with few side effects and high degree of satisfaction. Our limit was the high percentage of patients' loss at follow-up, which is unfortunately not so infrequent among women requesting abortion.

## Conclusion

Our observational study confirmed a 70% of 12 months continuation rate for LARC methods inserted at the time of abortion, with 80% of women satisfied with their choice.

## Conflict of Interests

Authors declare no conflict of interests.

## Acknowledgments

None.

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