Have Emergency Contraception and Medical Abortions altered Contraceptive Choices of Women?

1Smriti Gupta, 2Anita Sitimani, 3Anjali Gupta

ABSTRACT

Introduction: Ever since the advent of emergency contraception (EC), a controversy has risen whether its over-the-counter availability would negatively affect the use of regular contraception. Many physicians fear that with over-the-counter availability of medical abortion pills, women are bypassing the compulsory postabortion contraceptive services. Hence, this study was carried out to know whether EC and medical abortion have indeed altered the contraceptive choices.

Objective: To study (1) The awareness about EC and medical abortion among women, (2) Whether awareness about EC and medical abortion alters the choice of contraceptives among women.

Materials and methods: Questionnaire-based interview.

Results: About 75% of women were practicing contraception. More than half of the women were aware of EC (53.7%) and of medical abortion (57%). The women who underwent medical abortion were practicing contraception more often than those who underwent surgical medical termination of pregnancy (MTP).

Conclusion: Women aware of EC were practicing regular contraception more often but contraceptive choice was poor. Awareness about medical MTP showed positive correlation with the contraceptive practices.

Keywords: Awareness, Contraceptive choice, Emergency contraception, Medical abortion.

INTRODUCTION

Globally, some 45 million unintended pregnancies are terminated each year.1 Lack of access to spacing methods is a major factor behind the 76 million unintended pregnancies every year in the developing world.2 There exists a notion that over-the-counter availability of medical abortion pills and emergency pills might be prompting many couples to altogether avoid or use the less reliable contraceptives. We hence conducted this study to know the awareness among women about EC and medical abortion and whether this has altered their contraceptive choice.

OBJECTIVES

To study
• The awareness about EC and medical abortion among women and
• Whether awareness about EC and medical abortion alters the choice of contraceptives among women.

MATERIALS AND METHODS

We interviewed 456 women, in their reproductive age group, who attended the outpatient department of Dr. Ram Manohar Lohia Hospital, New Delhi, from July 2013 to December 2013 and collected information regarding contraception that they were practicing at the time, their knowledge about EC, number of times they used it till date, and about any MTP that they ever had.

Ethical clearance was obtained from Dr. Ram Manohar Lohia hospital ethical committee.

The women younger than 15 years or older than 45 years were excluded from the study. The collected data were tabulated and analyzed using z-score (double sample proportion test) and analysis of variance (ANOVA; two-factor without replication) test; p-value <0.01 was considered significant.

RESULTS

Four hundred and fifty-six women were interviewed during this study. Their demographics are shown in Table 1.

Of these 456 women, 340 women (74.5%) practiced contraception (Graph 1). Two hundred and forty-five women (53.7%) knew about the EC pills, their availability
in India, or the time window of 72 hours within which they should be consumed for best efficacy. Only 59 women had ever used it. None of the women knew that intrauterine contraceptive device could also be used for EC within 5 days of unprotected coitus.

We then divided the study population into two groups. One group consisted of 245 women who were aware of EC and the other had 211 women unaware of EC. The contraceptives practiced by them were tabulated and compared using the z-score (Graph 2).

One hundred and ninety-two women (78.36%) aware of EC and were using one or the other form of contraception as compared with 70.1% of the women ignorant about it. This difference was statistically significant with \( p = 0.0001 \). The difference in Copper-T (CuT) usage between the two groups was statistically insignificant (\( p = 0.0156 \)). The use of barrier contraception was higher among women who are aware about EC (42 vs 38.4%, \( p < 0.0001 \)). They were also using oral contraceptive pills (OCPs) (8.6 vs 1.4%, \( p < 0.0001 \)) and natural methods of contraception like safe period and coitus interruptus considerably more often.

We then classified the group of women familiar of EC, based on the number of times they used it, into the subgroup who had never used them (186 of 245) or used them once (44 of 245) or more than once (15 of 245) and then compared the contraceptive choices among the three, using ANOVA method with an intent to know if the women using emergency pills more often were lax toward regular contraception.

Among the various contraceptives available, women in all the three subgroups used condom most often (Graph 3). The subgroup that consisted of women who had never used EC were practicing regular contraception the least (23 vs 18 and 13%; Graph 3). They were practicing natural methods of contraception most often (13 vs 4.5 and 6%). All these data were compared using ANOVA: two-factor without replication analysis (Table 2) and all the differences were statistically significant, with \( p \)-value of 0.001.

We also collected information regarding MTP from these women and found that 167 women had undergone

<table>
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<tr>
<th>Table 1: Demographic details of women</th>
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<tr>
<td>Number of women</td>
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<tr>
<td>Age (years)</td>
</tr>
<tr>
<td>15–25</td>
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<tr>
<td>26–35</td>
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<td>36–45</td>
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<td>Undergraduate</td>
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<td>Graduate and above</td>
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<td>Working status</td>
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<td>Working</td>
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<tr>
<td>Not working</td>
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Graph 1: Pie chart depicting the contraception used by women in the study

Graph 2: Contraceptive use among women aware or ignorant about EC

Graph 3: Contraceptive method used by women according to the number of times they used EC
MTP. Of the 167 women, 40 women used medical means while rest of the 127 underwent surgical procedure. We then compared the contraceptive choices between these two groups with the intent to know whether undergoing medical abortion alters the choice of contraception among abortion seekers.

We found that the subsequent use of any type of contraceptive was much higher in the group that underwent medical abortion compared with the group that had surgical MTP (p < 0.001). Women who underwent medical abortion used CuT and natural methods more often (p = 0.0041 and p = 0.0056 respectively), whereas condoms were used more often by the women who underwent surgical MTP (p < 0.0001). Also, women who underwent surgical MTP had higher rate of opting for tubal ligation (p < 0.0001). The difference in the use of OCPs was not statistically significant between the two groups, with p = 0.0213 (Graph 4).

We also studied if mere awareness about the availability of tablets for MTP had altered the choice of contraceptives among women. Of the 456 women, 260 (57%) were aware of medical methods of MTP, while 196 women (43%) had never heard of them.

Of the 260 women aware of medical abortion, 205 (78.84%) practiced contraception. Of 196 women ignorant of medical abortion, only 135 women (68.87%) practiced regular contraception. This difference was statically significant (p < 0.001). Women aware of medical abortion used condoms, OCPs, and CuT more often. They also practiced natural methods of contraception more often than the women who were unaware of it (p < 0.001; Graph 5).

**DISCUSSION**

India is the second most populous country in the world. The fertility rate in India is 2.7 children per woman. As per National Family Health Survey (NFHS)-3, 64% of the women in urban areas were using some form of contraception. In our study, a slightly higher rate of contraception use was observed (74.5%). In the current study, condom was the most common contraceptive used (40%) followed by tubal ligation (15%) as compared with a meager 9.8% of condom usage and 37.8% of tubal ligation quoted by NFHS-3 in urban areas. The current study indicates that vasectomy is not practiced at all.

The EC pills have been available since the 1970s. They have been approved and integrated in the National Family Welfare Program in India. In our study, more than half of the population interviewed (53.7%) was aware about the EC pills and 12.9% had used them at least once in their lifetime. Kose and Joshi reported in their study that only 33% women knew about emergency contraception, out of which only 5% women had used it in the past.
The study by Raine et al\textsuperscript{5} stated that only 1 to 2\% had ever used EC. Our study showed that none of the women knew that CuT can also be used as an EC.

Raymond et al\textsuperscript{6} conducted a randomized controlled trial and randomly assigned two methods of access to EC pills: Increased access (two packages of pills dispensed in advance with unlimited resupply at no charge) and standard access (pills dispensed when needed at usual charges) and noted no difference in the self-reported measures of sexual behavior and contraceptive use between the two groups. In our study, women aware of EC were practicing contraception significantly more often than the women ignorant about it. The natural methods, condoms, and OCPs were used more often. The use of long-acting reversible contraceptives (LARC) like CuT was low but comparable between the two groups.

On comparing the contraceptive choices within the group aware of EC, based on the number of times they used it, we found that the women who used it more than once were practicing contraception most often. Even though our study depicts high contraceptive usage among these women, the choice of contraceptive was poor. The use of condoms was very high and this could have potentially influenced the result of highest contraceptive use seen among these women. Our results were fairly in accordance to the conclusion drawn by Walker et al\textsuperscript{7} wherein they stated that the experience with EC has no adverse effects on condom use, but rather is associated with an increased probability of condom use and an increased perceived capacity to negotiate condom use.

There are not many studies available in the literature supporting the contraceptive behavior of abortion seekers in India. In our study, 36.6\% women underwent induced abortion. In the current study, the contraceptive use was similar among the women who underwent MTP and those who did not.

Of the 456 women, 57\% women were aware of medical abortion. The women who underwent surgical MTP underwent tubal ligation, as an associated procedure, significantly more often. In the current study, the women who underwent medical abortion were practicing contraception more often than the women who had surgical MTP. They also used CuT more often, whereas those who underwent surgical MTP used condoms more frequently. This finding was contradictory to the results seen by Goldstone et al\textsuperscript{8} where it was concluded that compared with medical abortion, surgical abortion was associated with a greater likelihood of immediate LARC provision.

**CONCLUSION**

In our study, majority of the women were aware about EC and medical abortion. These women were also more aware about importance of regular contraception and practiced them more often. We hence conclude that easy accessibility to EC and medical abortion has positively influenced the contraceptive use among women.

**REFERENCES**