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Research Article

A STUDY ON ACCEPTANCE AND COMPLIANCE OF DEPOT MEDROXY PROGESTERONE ACETATE FOR POST-PARTUM CONTRACEPTION IN A TERTIARY CARE CENTRE IN EASTERN INDIA

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ABSTRACT

Objectives: Our aim was to determine the proportion of women accepting injection depot medroxyprogesterone acetate (DMPA) for postpartum contraception, its incidence of side effects, and discontinuation rates reasons for attrition.

Methods: A prospective cohort study was conducted in the department of obstetrics and gynecology at a tertiary care hospital for 1 year. All eligible women were given a choice of contraceptive options after proper counseling for postpartum patients at the time of discharge and at 6 weeks, thereafter, and post-abortion patients immediately after MTP. A specially designed modified pro forma from the DMPA reference manual was used to collect the data of women attending the hospital.

Result: A total of 240 women were included in the study. Most of the women (51.67%) were in the reproductive age group, 46.67% of women had 2 or more children, and most of the women (70.41%) were not used any family planning method earlier. The largest proportion of women (81.25%) were in the postpartum period. Irregular bleeding/spotting (39.08%) was the most common side effect. A larger portion of the women (36.5%) discontinued the injections due to side effects.

Conclusion: It should be available as a first-line method to all who wish to opt for reversible methods of contraceptive.

Keywords: Acceptance, Compliance, Contraception, Injectable depot medroxyprogesterone acetate.

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INTRODUCTION

Depot medroxyprogesterone acetate (DMPA) is a very effective contraceptive and convenient to use due to its dosage schedule [1]. In our country contraceptive prevalence is 54.8% [2]. According to NFHS-3, around 30% of the fertility in India was unwanted, indicating a huge gap between the demand and supply of family planning measures. The unmet need for contraception in the country as a whole is about 13% [3]. Concerted efforts by the government have resulted in the decline of unmet need for family planning from 25.4% (DLHS-I) to 21.3% (DLHS-III), but approximately 4.2 crore couples still have an unmet need for contraception (1.6 crore for spacing and 2.6 crore for limiting). Among popular methods offered such as barrier contraception, pills, IUCD, and sterilization, injection DMPA has been found to provide effective, long acting and reversible contraception in lactating mother and post-aborted patients [4]. High fertility rate, high maternal mortality, and high infant mortality rates are the shared problems of the all the developing countries of the world. The typical failure rate of DMPA is 0.3/100 women years which is comparable with OCP, IUCD, and surgical sterilization [5].

METHODS

A prospective cohort study was conducted in the Department of Obstetrics and Gynaecology at a Tertiary Care Hospital (Eden Hospital) in Kolkata for 1 year. All eligible women were given a choice of contraceptive options and explained well about the benefits and side effects of each contraceptive method. Those who chose DMPA were included in this study. Inclusion criteria: All postpartum/post-aborted women. Exclusion criteria: (1) Patients refusal, (2) Nulligravida, (3) Known or suspected pregnancy, (4) Undiagnosed vaginal bleeding, (5) Known hypersensitivity to DMPA or any component of the drug, (6) Severe liver dysfunction, and (7) Known or suspected malignancy of the breast. A specially designed modified pro forma from the DMPA reference manual was used to collect the data of women attending the hospital between the period January 2018 to December 2018, which includes patient particulars, time of counseling, type of DMPA, with reporting format including type of follow-up (clinic visit/telephonic), time of follow-up (12 weeks interval) and side effects at follow-up (irregular bleeding, amenorrhea, weight gain, and headache), actions taken for a complication, and reason for attrition/discontinuation. Counseling was done for postpartum patients at the time of discharge and postnatal visit at 6 weeks as well as post-abortion patients immediately after MTP.

The first injection (date of registration, date of first and next injections were mentioned in the Antara card) was given at a chosen date. The second and third injections were given at 3rd month and 6th month, respectively. The recommended dose is 150 mg of DMPA injectable suspension every 3 months (12–13 weeks) administered by intramuscular (IM) injection in the gluteal or deltoid muscle. The initial IM injection was given within 5 days postpartum if not breastfeeding; or, if exclusively breastfeeding, after 6 weeks postpartum. If the time interval between the second and subsequent injection was >13 weeks, pregnancy was ruled out before administering the next IM injection. For the purpose of the study and for logistic reasons, patients attending the gynecology and obstetrics OPD or antenatal clinic or family planning unit or admitted through emergency were approached. On an average, 10 postpartum women were approached and counseled for the

participation on one admission day per week. Willing participants were screened for the study selection criteria after obtaining the written informed consent.

RESULTS

Data were expressed in range and percentage (%). Data were analyzed using the standard statistical tests as applicable for both qualitative and quantitative data with a significance level at $p<0.05$. For this purpose, standard statistical software such as Microsoft Excel and SPSS was utilized. Range and percentage values were compared with hypothesis testing and the association between different categories with acceptability of DMPA was explored using tables, and charts. Age, parity, weight, family planning method used earlier, timing of injection, side effects, follow-up, discontinuation, reasons for attrition, etc., were the study variables.

A total of 240 women were included in the study for 1 year and their follow-up visits were noted subsequently. The collected data were represented as tables and charts.

Most of the women 124 (51.67%) were from the age group of 26 to 30 years (reproductive age group). No nulligravida was offered this contraceptive method as the method of birth spacing. Most of the women 112 (46.67%) had 2 or more children, thus had completed their family size [Table 1].

Most of the women 75 (31.25%) recruited in the present study were from the weight group of 56–60 kg. Most of the women (70.41%) were not used any family planning method earlier. Most of the women (81.25%) recruited in the present study were in the postpartum period. most of the women (81.67%) were accepted injection DMPA of their 1st follow-up visit which was done after effective counseling.

Most common side effect noted was irregular bleeding/spotting (39.08%), followed by amenorrhea (35.20%). In the present study, many women (6.63%) did not report any major side effects. In the present study, most of the women 126 (52.50%) had lost to follow-up after second injection, most of the women (36.5%) discontinued the injections due to side effects, whereas 34.92% of women were lost to follow-up [Table 2].

Table 1: Related to sociodemographic factor

Sociodemographic variables	Range/group/name	Number	%
Age (years)	<20	0	0
	21–25	70	29.17
	26–30	124	51.67
	31–35	40	16.67
	>36	6	2.5
Weight (kg)	45–50	46	19.17
	51–55	56	23.33
	56–60	75	31.25
	61–65	26	10.83
	≥66	15	6.25
Parity	Nulliparous	0	0
	1	72	23.33
	2	112	46.67
	≥3	56	23.33
Method (Used earlier)	Oral pills	34	14.17
	Condom	16	6.67
	IUCD	21	8.75
	Not used	169	70.41

Table 2: Related to the actual method of injectable contraceptive

Timing of injection	Number	%
Postpartum	195	81.25
Post-abortion	45	18.75
Follow-up		
1st injection	196	81.67
2nd injection	157	65.42
3rd injection	114	47.50
Side effects		
Irregular bleeding	78	39.8
Amenorrhea	69	35.2
Weight gain	21	10.71
Headache	15	7.65
No problems	13	6.64
Discontinuation rate		
After counseling	44	18.33
After 1st injection	83	34.58
After 2nd injection	126	52.53
Reasons for attrition		
Side effects	46	36.5
Lost to follow-up	44	34.92
Planning pregnancy	8	6.35
Missed injection date/changed contraception	28	22.22

DISCUSSION

DMPA is a very effective and acceptable contraceptive. In this study, no failure of DMPA injection was seen as no pregnancy has occurred after the use of DMPA injection in the study period. Most of the women 51.65% in the present study were from the age group of 26–30 years. Other's studies, Singh *et al.* study age 26–35 years was 61% [2]. Fonseca *et al*. age 26–30 years was 53.5% [3] and Mishra and Gupta study age group 21–30 years was 72.66% as similar result in our present study [5]. These were the group of women in the reproductive age group, who attend family planning OPD in large number, hence receptive to contraceptive counseling in much better way. Most of the women 46.67% had 2 or more children, thus had completed their family size. The sentence changed as follows—In similar study of Singh et al. most(65%) of the women had 2 or more children [2]. In another study by Fonseca et al. 44% of Women had para 2, similar to present study [3]. Most of the women (70.40%) which was not used earlier any family planning method in the present study, a similar result was observed in Sirisha study where 77% of women were not used any family planning method earlier [4]. In our study, most of the women were in the postpartum (81.25%) period, whereas approximately 18% of women were in their post-abortion period. Other's studies, Rai *et al*. postpartum women was 51% and post-abortal was 22.5% [1] and Mishra and Gupta postpartum women was 60% and post-abortal was 6.66% [5]. Our study indicated that contraceptive counseling and motivation are easy as well as effective during the postpartum period. In our present study, most of the women 196 (81.67%) accepted injection DMPA of their first follow-up visit after effective counseling and 65.42% accepted their second follow-up visit. Other studies, Sirisha follow-up rate was 36% after second injection [4]. Our study indicated that follow-up would be better after effective counseling. The most common side effect noted was irregular bleeding or spotting which was seen in 39.80% followed by amenorrhea in 35.20% in our study. For many women 6.63% did not report any major side effect. A similar result was Rai *et al*. was irregular bleeding at 70% and amenorrhea at 6.5% [1], Singh *et al*. (2013–2014) were irregular bleeding 50% and amenorrhea 70% [2], and Fonseca *et al*. (2017) were irregular bleeding 63% and amenorrhea 4.5% [3]. In our present study, the maximum dropout was after the second (52.50%) injection. In another study, Rai *et al*. discontinuation rate after the second injection was 43% [1], Fonseca *et al*. discontinuation rate was after the first (61%) [3], and the second (59%) injection, Mishra and Gupta discontinuation rate was after the first injection 73.77% [5]. The most common reason for attrition was our present study was side effect 36.5% followed by lost to follow-up was 34.92%. Other's studies, Fonseca *et al*. (2017) were a side effect of 38% followed by lost to follow-up 28% [3], Mishra and Gupta were side effect of 56.6% followed by lost to follow-up 17.33% which was a similar result with our study [5]. The reason can be attributed to their sociocultural factors as most of them were resident of distance places and come to delivery at this tertiary care center, few of them had opted for further pregnancy as well as few of them missed the injection date or changed contraception.

CONCLUSION

Pre-administration counseling is an essential tool to minimize attrition because of the menstrual changes which occur in most of the patients. DMPA when given every 12 calendar weeks is a highly effective hormonal contraceptive with a very low failure rate. It should be available as a first-line method to all who wish to opt for reversible methods of contraceptive.

AUTHORS CONTRIBUTION

Sangita Patra, Sudev Roy, and Somajita Chakrabarty have prepared the conceptual framework and designed the draft data collection and data analysis. Ritupriya Majumder and Sangita Patra have done the manuscript writing and final editing.

CONFLICT OF INTEREST

There is no conflict of interest.

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