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Original Research Article

Revisiting depot medroxyprogesterone

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ABSTRACT

Background: Injectable contraceptives form an important part of method mix of effective contraceptives used by women worldwide. Depot medroxyprogesterone (DMPA) is a long acting contraceptive which is safe, reversible and does not require any user action to maintain its efficacy.

Methods: This was a prospective questionnaire based study conducted on 84 women who were acceptors of DMPA. The women were interviewed by the same health worker in the local language using a preset questionnaire which included questions regarding the demographic profile, contraceptive choices and positive and negative experiences related to usage of Injection DMPA.

Results: Majority of the women were multiparous, between 25-30 years and were housewives. 19% women had started depo-provera after having one child while 87% started DMPA after their second child. The most common source of information about the contraceptive method was health care worker in 51.1% followed by friends in 30.9% and media in 17.8%. 53 women in the study group chose injection DMPA as it was convenient and safe. The most common side effect seen was amenorrhea followed by irregular bleeding, weight gain and pain abdomen. 91.6% women were satisfied with it and would recommend it to other women.

Conclusions: Addressing the unmet need of family planning requires not only recruiting new clients but also assuring that women continue to use the contraceptive. Method related myths and concerns are an important reason for high discontinuation rates which need to be addressed during counselling sessions.

Keywords: Depo-provera, Injection DMPA, LARC, Medroxyprogesterone

INTRODUCTION

Progesterone only injectables are highly effective, long acting contraceptives used by 6% women globally.¹ The main advantage includes convenience, safety and high efficacy with pregnancy rates as low as 0.4/100 women using them.² They mainly act by causing anovulation though thickening of cervical mucus and endometrial atrophy also plays a role.

We conducted a prospective, questionnaire based clinical audit to study the demographic profile, side effects and satisfaction rates among women using depot medroxyprogesterone (DMPA) as a contraceptive.

The aim of the study was to conduct a clinical audit of women using injectable DMPA (depot medroxyprogesterone) as a contraceptive method.

METHODS

It was a prospective questionnaire based study conducted in the OPD of a district hospital in Delhi from 1st July 2019 to 31st December 2019.

Selection criteria

Eighty four women who attended the OPD for their scheduled dose of the injectable contraceptive DMPA (depot medroxyprogesterone) were included in the study.

Procedure

The women were interviewed by the same health worker in the local language using a preset questionnaire which included questions regarding the demographic profile, contraceptive choices and positive and negative experiences related to usage of injection DMPA. Only women who consented to be part of the study were included.

Ethical approval

A preset questionnaire based study in which only women who consented to be part of the study were included.

RESULTS

Majority of the women (46.4%) were between 25-30 years of age. 28.5% of the women were illiterate and another 48.8% had studied upto secondary level. 92.8% were housewives. Thirty-six women (42.8%) had 2 children while 25 women (29.7%) had 3 and 5 women (5.9%) had four or more children (Table 1).

Table 1: Demographic profile of study group.

	Number (N=84)	Percentage
Age of women (years)		
<25 years	19	22.6
25-30 years	39	46.4
>30 years	26	30.9
Literacy level		
Illiterate	24	28.5
Primary education	8	9.5
Secondary level	41	48.8
Senior secondary	9	10.7
Graduate	2	2.3
Occupation		
Housewife	78	92.8
Laborer	4	4.7
Working in office	2	2.3
Parity		
P0	2	2.3
P1	16	19
P2	36	42.8
P3	25	29.7
>P4	5	5.9
History of previous termination of pregnancy		
Previous 1 abortion	33	39.2
Previous 2 abortions	12	14.2
Previous no abortion	39	46.4

Twenty-five women (29.7%) had never used any contraceptive before. There were 33 women (39.2%) who had got an abortion done for unwanted pregnancy in the past and 12 women (14.2%) had undergone the procedure twice. Sixteen women (19%) had started Depo-provera after having one child in the interval period while another

36 women (42.8%) started after their second child and 30 women (35.7%) opted for it after having the third child. There were 2 women who got injection DMPA after evacuation done for incomplete miscarriage (Table 2).

Table 2: Details of injection DMPA usage.

	Number (N=84)	Percentage
Timing of injection provera		
After abortion	2	2.3
After 1 st child	16	19
After 2 nd child	36	42.8
After >3 children	30	35.7
Number of dosage at FU		
2 nd dose	19	22.6
3 rd dose	20	23.8
4 th dose	14	16.6
5 th dose	9	10.7
>6 th dose	22	26.1
Side effects		
Amenorrhea	42	50
Irregular bleeding PV	21	25
Increase in weight >2 kg	02	2.3
Pain abdomen	03	3.5
No side effects	16	19
Source of information		
Healthcare workers	43	51.1
Friends/relatives	26	30.9
Media	15	17.8

The most common source of information about the contraceptive method was health care worker in 51.1% followed by friends in 30.9% and media in 17.8% acceptors. ASHA, the frontline workers were the source of information in 15.4% women (Table 2).

53 women in the study group chose injection DMPA as their contraceptive choice as it was convenient and safe. Twenty-three women (27.3%) opted for it as they wanted a long-acting contraceptive but were not willing for intrauterine contraceptive (IUCD).

22.6% of the study group comprised of women who had taken 1 dose of the contraceptive injection, 23.8% and 16.6% had taken 2 and 3 doses respectively and 36% had completed 4 or more doses of injection DMPA. The most common side effect seen was amenorrhea in 42 women (50%) followed by irregular bleeding (25%), weight gain more than 2 kg (2.3%) and pain abdomen (3.5%); sixteen women (19%) did not experience any untoward side effects with its usage (Table 2). 91.6% women were satisfied with the injectable contraceptive and would recommend it to other women while 8.3% said that though they were using it but still would not recommend this form of contraceptive to others.

DISCUSSION

Injectable progestin only contraceptives are long acting, convenient and safe and are used by 6% of women globally.¹ They mainly act by preventing ovulation and possible secondary mechanisms include cervical mucus thickening and endometrial atrophy. They are highly effective with pregnancy rates as low as 0.4/100 women.²

In the present study 48.8% of women who adopted injection DMPA were educated upto secondary level and 28.5% were illiterate; use in nullipara was found to be only 2.3% in the present study. Sumita et al found that 59.1% of injection DMPA acceptors had primary education and most of them were multiparous with only 4.48% nulliparous women using it.³ Other authors have also found 50-60% of the clients using injection DMPA to have at least primary education.^{4,5}

39.2% of the study population had history of previous one induced abortion and another 14.2% had undergone 2 abortions. McCall et al showed that 23.4% of women who had an initial termination underwent a repeat one.⁶ Skjeldestad et al found the cumulative incidence of second induced abortion to be 12.3% at 4 years.⁷ Fisher et al found women seeking termination of pregnancy for the second time to be 23.1% of the study group.⁸ Repeat termination is a measure of unplanned pregnancy and unmet need of contraception in the community. Long acting reversible contraception is a good option in this group of women. In spite of a high rate of induced abortions in our study, only 2 women opted for injection DMPA as a contraceptive choice.

Changes in menstrual bleeding patterns and amenorrhea which are common with depo-provera usage were the most common side effects experienced by women in the study. Seventy-five percent women in the study experienced menstrual abnormalities of which secondary amenorrhea was the most common (seen in 50%). Ezegwui et al in his review of 684 new clients of injection DMPA, found menstrual abnormalities in 94.4%, Sumita et al found amenorrhea to be present in 50% clients followed by irregular bleeding patterns in 25%.^{3,4} Adeyemi et al in his retrospective review of 1967 clients found menstrual abnormalities to be present in 71.4% and amenorrhea in 66.7%.⁹ Other studies have also found changes in menstrual patterns to be the most common side effect associated with injection DMPA usage.^{6,10,11} Zerihun et al found significant increase in mean weight and BMI in injection DMPA users. They found excessive weight gain of more than 10% in 18% women.¹² Various other authors have also demonstrated association between injection DMPA and weight gain.^{13,14} The present study found weight gain in only 2.3% of depo-provera users. Alyousbaki et al in their study did not find any association between injection DMPA and weight gain.¹⁵ According to Cochrane Review in 2016, no change in weight gain or body

composition was seen with progesterone only contraception as compared to other contraceptives.¹⁶

Almost half the study group had got information regarding injection DMPA from health care workers and 19% from friends and relatives and another 17% from the mass media. In the review by Aniekan et al 84.2% derived their information from healthcare workers and friends while the media played a negligible role.⁵

The study showed continuation rates of 36% even after 12 months of use. In the study by Sumita et al 50.4% clients discontinued the injection after the first dose itself.³ Various studies have quoted the discontinuation rates to be between 41 to 77%; the most common reasons for discontinuation of DMPA are the side effects associated with it.¹⁷⁻²⁰ The common side effects are benign but concerns regarding them lead to premature discontinuation. Understanding of women's concerns and experiences using DMPA is important and they need to be addressed by appropriate counselling.

Limitations of the study were: the number of women interviewed in the study was small but it still highlights the fact that most of the acceptors of injection DMPA were satisfied with the method and would recommend it to other women.

CONCLUSION

Addressing the unmet need of family planning requires not only recruiting new clients but also assuring that women continue to use the contraceptive for as long as they wish to. Method related myths and concerns are an important reason for high discontinuation rates which need to be addressed during counselling sessions. Also, effective post termination contraceptive practices need to be encouraged among the women seeking termination of pregnancy and usage of depo-provera in such women can go a long way in decreasing the rates of unplanned pregnancy in our society.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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