



## ACCEPTANCE OF DMPA AS A CONTRACEPTIVE IN NATIONAL PROGRAMME

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**ABSTRACT**

The safety, acceptability and efficacy of injection DMPA, newly launched as a contraceptive method in national programme, was studied. A total of 100 Women attending family planning clinic enrolled, divided into Post abortal, Post-partum & interval contraception, based on timing of initiation of Injection DMPA. Women receiving injection every 3 month were followed up for a period of 12 months and Data analyzed. Women numbering 30, 40 and 30 in postpartum, post-abortion and interval period group respectively were mostly (95%) between 20-35 years, (mean age  $28.34 \pm 4.60$  years). The most common side effect was Irregular bleeding PV (61%) followed by Amenorrhea (34%) forcing discontinuation in 15%. Sixty-nine percent of women were satisfied with the method and 91% satisfied with the provider. Though DMPA a safe, convenient and effective long acting contraceptive for women with low acceptance- compliance problems, prominent menstrual changes are main reasons for discontinuation. An appropriate pre-use counselling and providers support during follow-ups increase the continuation rate and acceptance amongst users.

**KEYWORDS :** DMPA, Contraceptive, ANTARA**INTRODUCTION:**

The use of safe and effective contraception is the need of the hour in India, which has one of the world's largest and fastest growing population<sup>1</sup>. Contraceptive choice is a vital component of good community health. An ideal contraceptive should suit an individual's personal, social, and medical needs. Socio-economic factors and education play an important role in family planning acceptance<sup>2</sup>.

There are approximately 40 million women in India who would prefer to avoid pregnancy but may not be practicing any form of contraception. In the Indian scenario, women have no role in making of reproductive decision<sup>3</sup>. According to NFHS-4 survey(2015-16), Contraceptive prevalence rate in India is 53.5%. The unmet need for contraception in the country as a whole is 12.9%(5.7% for spacing and 7.2% for limiting) indicating a huge gap between demand and supply of family planning measures<sup>4</sup>.

The high rate of unintended pregnancies and relatively high failure rates with the typical use of reversible methods of contraception are strong indications of need for long acting reversible contraceptive methods(LARC) that simplify compliance<sup>5</sup>.The LARC methods are as effective as sterilization and IUD's and are more effective than oral and barrier contraception<sup>5</sup>

One such LARC method is injectable contraceptive Depot medroxy progesterone acetate (DMPA), a synthetic form of progesterone which is injected either intramuscularly or subcutaneously, It is released slowly into the blood stream and provides long lasting hormonal activity<sup>3</sup>.

DMPA is currently formulated as an aqueous micro crystalline suspension of synthetic progesterone which is administered by deep IM at the dose of 150mg every 12<sup>th</sup> week<sup>6</sup>. DMPA Acts by inhibition of ovulation with suppression of FSH and LH and eliminates the LH surge resulting in hypo estrogenic state. Reportedly, it is an extremely effective contraceptive option with failure rate of 0.3% in perfect use and 3% in typical use with relatively lesser side effects like spotting, irregular bleeding, long duration of menses, head ache and weight gain<sup>7</sup>.

There may be a delay in the return of normal periods after using this drug, although there is no long-term permanent

effect on fertility<sup>9</sup>. Since DMPA has been newly launched as a contraceptive in the Indian national family programme in the name of "ANTARA", it was desired to study the safety, efficacy and acceptability of the injection in eligible women attending our hospital over a 12 months period.

**MATERIAL AND METHODS:**

This prospective, longitudinal and a single centered study was conducted in the department of Obstetrics and Gynaecology, Kasturba hospital from January 2018 to December 2018. A total of 100 Women attending family planning clinic, seeking contraception, were selected according to inclusion criteria. After taking written informed consent, they were enrolled in the study during initial 3 months and were further divided into Post abortal, Post-partum, interval contraception based on timing of initiation of injection DMPA. Socio demographic data was collected through interviews. History and examination findings noted. Each case was followed for a period of 12 months from the date of initiation of injection on an OPD basis according to prestructured proforma. During each follow up visits, pregnancy was ruled out and women were asked questions on experience, acceptability, satisfaction, side effects and their willingness to continue inj DMPA.

Reasons for recommendation of inj DMPA to others and reasons for discontinuation were noted.

**RESULTS:**

Most of the women (95%) recruited in the present study were from the reproductive age group of 20-35 years with the mean age of  $28.34 \pm 4.60$  years. Majority of women were from Muslim community, belonging to lower and upper middle socio-economic class. Around 40% of women were found to be illiterates, whereas 55 % of them had attended some schooling. Majority (69%) of women were multiparous. Predominant number of women had normal BMI(<25).

Out of 100 women in study, 30 in postpartum period, 40 in post abortal period and 30 women received Inj DMPA as interval contraception.

Figure1 shows that the most common side effect reported in our study group was Irregular bleeding PV (61%) followed by Amenorrhea (34%). Other side effects included heavy menstrual bleeding (HMB), weight gain, mood changes and

weakness. Ninety-nine percent of women experienced irregular cycles during study. Many had multiple problems.

**Figure 1- Distribution of Side effects To DMPA**

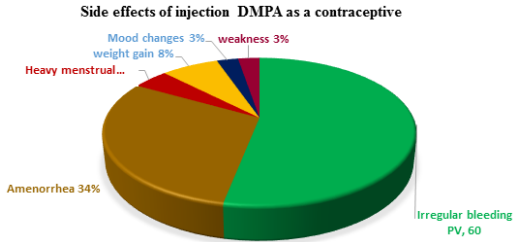


Table 1 depicts, the graded response of Questionnaire which were put forth for DMPA users in order to assess Acceptability of contraceptive method.

**Table 1 Acceptability of DMPA**

	No.	%
<b>Overall level of satisfaction while using DMPA injection(N= 100)</b>		
Very much satisfied	20	20.0
Somewhat satisfied	49	49.0
Not satisfied	31	31.0
<b>level of satisfaction regarding information given by provider(N= 100)</b>		
Very much satisfied	21	21.0
Somewhat satisfied	70	70.0
Not satisfied	9	9.0
<b>Would you recommend Inj DMPA to your friend(N= 100)</b>		
Very likely recommend	34	34.0
Recommend	49	49.0
Do not recommend	17	17.0
<b>Are you willing to continue injection DMPA after study period(N=69)</b>		
Yes	59	85.5
No	10	14.5

Apparently 69% of women were 'satisfied'with the method while 91% DMPA users were satisfied with the provider information on contraception use, benefits, side effects and its efficacy. 53% of women were willing to recommend injection to others and 85.5% swilling to continue injection DMPA after study period.

**Table 2 Reasons for discontinuation of DMPA in study subjects**

Reason for continuation(N=31)	No	%
Side effects	15	48.4
Tubectomy	4	12.9
Plan conception	4	12.9
Spouse insistence	4	12.9
Weakness	2	6.4
Husband away	2	6.4

Majority of women discontinued injection DMPA due to side effects which mainly included disruption of menstrual bleeding pattern (Irregular bleeding PV, amenorrhea, HMB) followed by tubectomy, spouse insistence and planning conception.

**DISCUSSION**

DMPA is safe, effective and convenient contraceptive and presents with few acceptor-compliance problems. However, It has the propensity to produce bleeding disturbances that can severely affect continuation rates. Perhaps the most important issue surrounding the use of DMPA is that of patient information. Pre-use counselling is an essential tool to minimize the impact of menstrual change which occurs in most of the patients.

During the study it was observed that users who are well informed regarding their method's side effects have the highest contraceptive satisfaction and continuation rates. Hence, before initiation of DMPA contraceptive, clinicians should ensure that candidates recognize this method's most common side effects (as with all long-acting progestin contraceptives), menstrual changes constitute the most important side effects of DMPA use. The most common side effect reported in this study was Irregular bleeding PV (61%) followed by Amenorrhea (34%) as reported similarly earlier by Michelle Fonseca<sup>6</sup>, Pratibha singh<sup>6</sup> and Lavanya Rai<sup>9</sup>.

Acceptability of any contraceptive method is measured by indices such as continuation /discontinuation rate as well as by the level of satisfaction, efficacy, safety, concerns on side effects, willingness to continue and recommend the contraceptive method to others through Questionnaire. A good experience while using any contraceptive methods makes users to recommend the same for others in community. Most important reason in those who did not want to recommend was side effects (menstrual pattern disruption).

The acceptance of contraception by a couple is also governed by various socio-cultural factors, such as religion and education of husband and wife.The muslim dominance in the study likely to have an impact on continuation or willingness. Greater contraceptive use demands higher levels of motivation. Mass media, Spousal communication & cooperation increases the likelihood of contraceptive use and acceptibility. Son preference, women's age, literacy, number of living children, number of living sons may influence contraceptive use in India<sup>10</sup>.

So far as Safety was concerned, DMPA was well received by women with hypertension (2 cases), migraine without aura(4 cases) and on ATT(2 cases). No serious complications or aggravation of existing disease was noted. It was found to be safe in breast feeding mother with no effect on duration and quantity of breast milk. No change in sexual experience noticed by women in study group, concluding the fact that DMPA is safe in above medical conditions.

There was no significant differences seen between the timing of initiation of injection DMPA i.e post-partum, post abortal, and interval period with the acceptability, safety profile and efficacy of injection DMPA.

Irregular bleeding PV and Mean number of spotting days had a decreasing trend over time. With subsequent injections women had tend to develop less frequent spotting episodes. Few women developed Amenorrhea by the end of 2<sup>nd</sup> injection and Amenorrhea progressively increased with subsequent injections.

Women who had a non-scheduled visit after 1<sup>st</sup> injection (25% ), declined after 2<sup>nd</sup> and 3<sup>rd</sup> injection to 8.9% and 4.9% of women respectively. The reason for non-scheduled visit was mainly irregular bleeding PV or heavy menstrual bleeding. After quality counselling 70.37% had their problems sorted out. Pre use counselling and information on possible side effects of injection DMPA during subsequent visits noticeably decrease the number of non-scheduled visits as well as discontinuation of injections. Overall discontinuation rate was found to be 20%.

**CONCLUSIONS:**

Study concluded that DMPA is a safe, convenient and effective long acting contraceptive for women in postpartum period, postabortal period and as a interval contraception with few acceptance- compliance problems. Menstrual changes being the most common side effect and also the reason for discontinuation in majority of women can be a factor at national level. An appropriate patient information on

expected side effects, aggressive pre-use counselling and providers support during subsequent follow-ups highly increases the continuation rate and acceptance in these women and must form an important component to be a successful national level contraceptive.

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