



DMPA: acceptance, compliance and efficacy in a tertiary care Hospital J K Lone Hospital Kota, Rajasthan.

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ABSTRACT

Background: India has one of the world's largest and fastest growing population, so the use of safe and effective contraception is the need of the hour. Use of Contraceptive is a vital component for good community health. Ensuring healthy timing and spacing of pregnancy is now considered an important intervention for reproductive, maternal, neonatal, child and adolescent health. Use of reversible or spacing methods of contraceptives can save women's life and health due to a reduction in unwanted, closely spaced and mistimed pregnancies.

Objectives: To assess the acceptability and compliance of injection DMPA in married women attending family planning OPD.

Methods: The present study was conducted in Govt. medical college Kota, Rajasthan. The aim of this study was to assess the acceptance, compliance and efficacy of DMPA (Depot Medroxy Progesterone Acetate) among women attending family planning OPD. The study was conducted over the period of April 2018 to March 2019. Meticulous follow up was kept for all the women recruited in the study.

Results: The study shows that DMPA is highly effective contraceptive with low failure rate, when women are effectively counseled. Also, it should be made freely and easily available through health care facilities at various level of health sector.

Conclusions: It is concluded that DMPA should be available as a first line method to all who wish to make an informed choice about reversible methods of contraception. Pre use counseling regarding initial irregular bleeding and later amenorrhea will further improve acceptance, satisfaction and continuation rate of DMPA as a postpartum contraceptive. It should be available as a first line

method to all who wish to opt for reversible methods of contraception.

Keywords: Acceptance, Contraceptive, Counseling, DMPA

I. INTRODUCTION

One of the biggest problems developing countries are facing is irregular population growth which in fact is a serious threat for the international community and a major obstacle for nations' social and economic development [1]. Thus, one of the ways to have a healthy community is to control the population and provide safe and effective contraceptive methods. Hormonal contraceptives are the most effective method of birth spacing. India shares one sixth of the total burden of the global population of around 7.6 billion. High fertility rate, high maternal mortality and high infant mortality rates are the shared problems of the all the developing countries of the world [2]. Contraceptive advice 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 are some of the factors that play an important role in family planning acceptance. The high rate of unintended pregnancies and the relative failure rates with the typical use of reversible methods of contraception are strong indicators of the need for a long acting contraceptive method that simplifies compliance. There are approximately 40 million women in India who would prefer to avoid pregnant but are not practicing any form of contraception. According to NFHS-4, 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 12.9%. The unmet need is high among women aged



15-19 years and among those aged 20-24 years (5.7% for spacing).[3]

Inj. Depot Medroxy Progesterone Acetate or Inj.DMPA is a progestin-only method of contraception. It is a 3 monthly intramuscular injectable that delivers 150 mg of medroxyprogesterone acetate in microcrystalline suspension and sub-cutaneous lower dose (104 mg MPA/0.65mL) form that delays absorption of the hormone after the injection. It provides long acting, effective and reversible contraception [4] .It provides long acting, effective and reversible contraception. It acts by inhibition of ovulation by suppressing mid cycle LH peak, thickens the cervical mucous and the endometrium becomes atrophic preventing blastocyst implantation. It is accepted by women who cannot remember to take OC pills regularly and by those who do not wish to insert an IUD.

II. METHODS

A prospective study was conducted in the Department of Obstetrics and Gynaecology at a Tertiary Care Hospital in Kota, for a period of one year (2018 -2019). All eligible women were given choice of contraceptive options and explained well about the benefits and side effects of each contraceptive method. After taking an informed consent a detailed history was taken and physical and gynecological examination was done. Those who chose DMPA were included in this study. Injection DMPA 150 mg IM was given intramuscularly/subcutaneously after counseling. Care was taken to ensure that the injection was given either in the first week of menses, immediate post abortal or at 40 -45 days of post partum period. A total of 185 women were included in the study and their follow-up visits were noted subsequently. The collected data was represented in the tables

Exclusion criteria- Breast feeding- less than 6 weeks

Unexplained vaginal bleeding or suspected malignancy

Severe liver disease

Severe hypertension

Breast cancer

Coagulation disorders

Subsequent injections were given at three monthly intervals. All women were advised to keep a menstrual diary and report immediately in case of any complaints. All women were followed for one year after the first injection. During each visit the following parameters were assessed. 1- Alteration in their menstrual pattern or amenorrhea. 2- Weight

and blood pressure. 3- Any other side effect related to progesterone e.g. headache, backache, bloating, depression. 4- Reason noted if the patient wanted to discontinue injections

III. RESULTS

According to figures in Table 1, Most of the women 77 (41.62%) recruited in the present study were from the age group of 21 to 25 years. These were the group of women in reproductive age group, who attend family planning outpatient dept. in large number, Hence receptive to contraceptive counseling in much better way.

Table 1 : Distribution of cases according to age

Age	Number	Percentage(%)
<20	9	4.86
21-25	77	41.62
26-30	71	38.37
31-35	22	11.89
>36	6	3.24

Table 2. Depicts no. of patients as per their parity. Majority of the women 85 (45.94%) had 2 or more children, thus had completed their family size and 62 (33.51%) women had one child and wants spacing for further pregnancy.

One Nulligravida woman was choosed this contraceptive method.

Table 2 : Distribution of cases according to parity

Parity	Number	Percentage (%)
Nullipara	1	.54
1	62	33.51
2	85	45.94
3	25	13.51
>4	12	6.48

In our study 105 (56.67%) women had started DMPA inj. in the postpartum period. 61 (32.97%) women had started in interval period. 19 pts (10.27%) had started in the post abortal period.

According to figures in Table 3, In the present study, majority of women(27.56%) did not report any major side effect while 25.94% cases had complaint of amenorrhea,19.45% were suffered from irregular bleeding,13.5% had slight weight gain and slight headache was reported in 7.07% women.

Table 3: Distribution of cases according to side effects

Side Effects	Number	Percentage
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		(%)
No problems	51	27.56
Amenorrhea	48	25.94
Irregular bleeding	36	19.45
Weight gain	25	13.51
Headache,backache	13	7.07
Others	12	6.48

In the present study, most of the women 98 (52.97%) had lost to follow up after 1st injection. The reasons can be attributed to their socio-cultural factors, as most of them were residents of distant places. Few of them had opted for further pregnancies. Higher discontinuation rate may be due to various factors like side effects, socio cultural factors, family myth like irreversibility of injection or women coming from remote areas and were unable to come again for follow up hence, discontinued the injection

Table 4 : Distribution of cases according to discontinuation Rate

Follow Up Rate	Number	Percentage (%)
After 1 st Injection	98	52.97
After 2 nd Injection	72	38.91
After 3 rd Injection	43	23.24
After 4 th Injection	13	7.02

According to figures in Table 5, In the present study, The most common reason for attrition are side effects. Others reasons for attrition were lost to follow up, planning for next pregnancy, missed Injection, date/changed contraception etc.

Table 5 : Distribution of cases according to Reasons for attrition

Reasons	No. of patients	Percentage (%)
Side effects	73	39.45
Lost to Follow up	33	17.83
Planning for next pregnancy	01	.54
Missed Injection Date/changed contraception	34	18.37

No women conceive while taking injectable contraceptive during this study. This shows that Inj. DMPA is highly effective contraceptive when women are effectively counseled.

IV. DISCUSSION :

DMPA is a very effective and acceptable contraceptive. The typical failure rate of DMPA is 0.3 per 100 woman-years, which is comparable with that of implantable contraceptives, copper intrauterine devices (IUD) or surgical sterilization. In this study no failure of DMPA injection was seen as no pregnancy has occurred after use of DMPA injection in study period. However in spite of its convenient 3 monthly dosing schedule compliance was not good as 98 (52.97%) women discontinued it after the 1st injection. Similar drop out is seen in study of Fonseca et al (2017) [5] and Aktun H et al (2005) [6]. In Nair et al (2007) [7] discontinuation rate was 43%. In our study only 13(7.02%) women has completed 12 month follow up which is lower than study of Sirisha P et al (2017) [8] in which 36% women completed 12 month follow up. Higher discontinuation rate may be due to various factors like side effects, socio cultural factors, family myth like irreversibility of injection or women coming from remote areas and were unable to come again for follow up. In our study 19.45 % women discontinued due to irregular bleeding. Amenorrhea was seen in 25.94% of the women which is higher than Fonseca M et al 4.5% but lower than Nair et al where amenorrhea occurred in 65% of the women. However amenorrhea is beneficial for women suffering from anemia, dysmenorrhea and menorrhagia and amenorrhic women wanted to continue due to its beneficial effect on health [9].

Injectable contraceptives are associated with a lot of apprehension and misinformation, because of the alterations in menstrual cycles, which naturally makes potential users anxious and biased against these.[10] Pre-administration counseling is essential tool to minimize attrition because of the menstrual changes which occur in most of the patients. Assess for the common side effects and address any questions or concerns she may have. Identify and manage her problems. Women should be provided with IEC material to create awareness about this method of contraception and to allay all the misinformation.[10] DMPA should be made available in multiple service delivery systems (e.g., other than social marketing or private sector settings) that can ensure provider technical competence and informed choice.



V. CONCLUSION:

DMPA should be considered a highly effective, safe, convenient contraceptive option for appropriately selected patients. Progestin-only contraceptives do not impair lactation and, in fact, may increase the quality and duration of lactation. Thus, DMPA represents a good contraceptive option for lactating women.[12] Injection DMPA should be made freely available along with IUCD and other modes of contraception like condoms and OC pills. Women should be provided with IEC material to create awareness about this method of contraception and to allay all the misinformation.[11]. If women are given reminders for their follow-up injections, it could increase regular and uninterrupted use of the injection. In a developing country like India where infant and perinatal mortality is high it is better to use temporary methods rather than permanent until the baby becomes older. In such cases DMPA appears to be the best option. Women need to be educated and empowered so that they can control their fertility and have access to a wide range of contraceptives suited to their age and reproductive life stage. It should be available as a first line method to all who wish to opt for reversible methods of contraceptive.

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