

Original research article

## Acceptability and Compliance of DMPA in Patna Medical College and Hospital, Bihar.

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### Abstract

**Introduction:** In India, a large proportion of women with an unmet need for contraception are within their first year after childbirth. It is major obstacles for nation social and economic development. The present study concentrates to educate postpartum women for contraception and to study the acceptance and compliance of medroxyprogesterone acetate (DMPA) in Bihar women .

**Methods:** This is retrospective study with cross sectional data collection from 210 patients for a period of 14 month , from JANUARY 2019 TO FEBRUARY 2020.

**Results:** The study concluded that DMPA is highly effective contraceptive with low failure rate .

**Conclusion:** It is available as a first line method to all who wish to opt reversible method of contraception.

### Introduction

Globally, 222 million women would like to prevent or delay pregnancy but have no access to contraception. Meeting this need would allow women to control their own fertility and reduce maternal deaths by onethird, with lasting benefits for their families and communities.

Postpartum family planning (PPFP) aims to prevent unintended pregnancy and closely spaced pregnancies after childbirth .family planning can prevent 1 in 10 deaths among babies if couples space their pregnancies more than 2 years apart. Closely spaced pregnancies within the first year postpartum increase the risks of preterm birth, low birthweight and small-for-gestational-age babies. The risk of child mortality is highest for very short birth-to-pregnancy intervals (i.e. less than 12 months).

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. Contraceptive advice is a vital component of good community health. An ideal contraceptive should suit an individual's personal, social, and medical needs.

Injectable contraceptives are a widely-used family planning method among women in developing countries

Depo Provera (medroxyprogesterone acetate, DMPA) when given as 150 mg by deep intramuscular injection every 12 calendar weeks (84 days+5 days), is a highly effective

contraceptive with a very low failure rate comparable to modern copper IUDs and lower than many other methods.

Depot medroxyprogesterone acetate (DMPA-SC) has been included as a new method in the 5th edition of WHO's 'Medical eligibility criteria for contraceptive use' (MEC).

### Methods and Material

It is a retrospective cross sectional study conducted in the Department of Obstetrics and Gynaecology at PMCH, BIHAR. All eligible women between 18-40 years were given 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. A total of 210 women were included in the study over a period of 14 months and their follow-up visits were noted subsequently. Injection DMPA 150 mg IM was given intramuscularly after taking consent and proper physical and gynaecological examination. 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. If the interval from the preceding injection is greater than 14 weeks (13 weeks plus 7 days) for any reason, then pregnancy should be excluded before the next injection is given

### Exclusion criteria

- Breast feeding less than 6 weeks.
- Unexplained vaginal bleeding and any malignancy.
- Severe liver and heart disease.
- Severe hypertension and thromboembolic events.
- Coagulation disorder.

### Result

All data collect was evaluated and analyzed statically.

**Table 1 : DUSTRIBUTION OF DEMOGRAPHIC VARIABLES**

DEMOGRAPHIC	NO. OF WOMEN n=210	PERCENTAGE
<b>AGE</b>		
<20	32	15.4
21 TO 25	102	48.5
26 TO 30	52	24.7
31 to 35	24	11.4
<b>GRAVIDA</b>		
PRIMI		
MULTI		
<b>START OF INJECTION</b>		
POST ABORTAL	17	8
POSTPARTUM	151	71.9
INTERVAL	42	20

In my study total 210 patient was taken. Majority of patient were of 21 to 25 years (48.5%) and most of them(\*\*) were multigravida and (\*\*\*) were of low socioeconomic status who wanted to adopt injectable form of contraception in form of DMPA. Among variables 71.9% patients started in Postpartum period followed by the women who started in interval period (42%).

**Table 2 : DISTRIBUTION OF RATE OF DMPA TAKEN**

FOLLOW UP TIME	NO. OF WOMEN	PERCENTAGE
1 <sup>st</sup> INJECTION	210	100
2 <sup>nd</sup> INJECTION	62	29.5
3 <sup>rd</sup> INJECTION	23	11
4 <sup>th</sup> INJECTION	8	3.8

In my study, 70% patients did not take DMPA after the 1<sup>st</sup> dose and only 62 (29.5%) received 2<sup>nd</sup> dose. Similarly, 89% failed receive the 3<sup>rd</sup> dose and only 8 patients (3.8%) took the 4<sup>th</sup> dose.

**Table 3: DISTRIBUTION OF SIDE EFFECTS**

Side effects	NO. OF WOMEN	PERCENTAGE
IRREGULAR BLEEDING	130	62
AMENORRHEA	42	20
SCANTY PERIOD	14	6.6
HEADACHE	10	5
WEIGHT GAIN	5	2.3
NO PROBLEM	9	4.1

In present study, the most common side effects was irregular bleeding in 130 patients (62%) followed by amenorrhea in 42 (20%). In remaining, 14 had scanty period, 10 had history of headache, 5 had weight gain. Out of 210, only 9 patients did not have any problem.

### Discussion

DMPA is very effective “long-term female contraception” in all countries where they are registered. Progestin-only contraceptives do not impair lactation and, in fact, may increase the quality and duration of lactation. Thus, DMPA represents injectable contraceptives are associated with tedious schedule of remembrance like OCPs. Oral contraceptive methods involve remembering to take a pill each day, in the case of the progestogen only pill within the same three hours each day. This places considerable strain on women who lead irregular lifestyles. All progestogen-only methods, whether low or high dose, lead to menstrual disturbances, so in this respect DMPA is not unique.

**TABLE 4: REASON OF ATTRITION**

REASON OF ATTRITION	NO. OF WOMEN	PERCENTAGE
SIDE EFFECT	36	17.14
LOST OF FOLLOW UP	147	70
MISSED INJECTION	9	4.3
CHANGE OF CONTRACEPTION	18	8.56
PREGNANCY	0	0

Pre-administration counselling is essential tool to minimise attrition because of the menstrual changes which occur in most of the patients. This can be reduced with effective counselling at the start. It rarely require operative medical intervention, and can often be improved simply by short courses of oestrogen or shorter injection intervals. In my study, 70% patients did not

take DMPA after the 1<sup>st</sup> dose and only 62 (29.5%) received 2<sup>nd</sup> dose. Similarly, 89% failed to receive the 3<sup>rd</sup> dose and only 8 patients (3.8%) took the 4<sup>th</sup> dose. The cause of discontinuation may be due to various factors like side effect, sociocultural factors, low literacy rate, family myth like reversibility of injection and women coming from remote areas and were unable to come again for follow-up. In our study 62% women discontinued due to irregular bleeding which is higher than the study of Nair et al (2017) where irregular bleeding occurred in 45% of women. Amenorrhea was seen in 20% 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. DMPA has no appreciable effects on blood pressure or thrombosis risk. It did not show changes in cholesterol or triglycerides and had no significant effect on hemostasis. It can be given in patients who suffer from focal migraine where estrogen use is contraindicated. In terms of metabolic effects, it impairs the oral glucose tolerance test (OGTT) glucose response and increases insulin response. There were no significant adverse effects on long term growth and development in DMPA exposed children and no delays in return to fertility. For cancers, controlled surveillance of DMPA users found no overall increased risk of ovarian, liver or cervical cancer and even found a prolonged protective effect in reducing the risk of endometrial cancer.

If the interval from the preceding injection is greater than 14 weeks (13 weeks plus 7 days) for any reason, then pregnancy should be excluded before the next injection is given.

Postpartum: If the patient is not breast-feeding, the injection should be given within 5 days postpartum (to increase assurance that the patient is not pregnant). If the injection is to be given at another time then the pregnancy should be excluded. If the patient is breast-feeding, the injection should be given no sooner than six weeks postpartum, when the infant's enzyme system is more developed (see section 4.6).

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