



## A STUDY OF USE OF DMPA (INJECTABLE CONTRACEPTIVE) IN POSTPARTUM AND POSTABORTAL PATIENTS

### Gynaecology

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### ABSTRACT

**Background:** Injectable depot-medroxyprogesterone acetate is a progestin-only, long acting contraceptive. It is proved safe, effective, reversible and acceptable.

**Aims and Objective:** The objective of the study is to evaluate the safety and effectiveness of DMPA in postabortal and postpartum patients. To study clinical presentation, outcome and side-effects of DMPA in postabortal and postpartum patients.

**Materials and method:** The type of study was prospective, interventional and a single centered study conducted in Department of Obstetrics and Gynecology at L G Hospital, Maninagar, Ahmedabad. Study group received Inj. DMPA 150 mg intra muscularly immediately after abortion or delivery before discharge from hospital (Day 2 to 7 of their delivery). They were given DMPA every 3 months.

**Results:** In present study, Out of 90 patients, 50 patients (55.55%) took injection post-delivery and 40 patients (44.44%) took it post abortion. Irregular bleeding was major side effect seen in 55 patients (61.11%), amenorrhea seen in 26 (29%) patients, weight gain noted in 3 patients over 1 year. Other side effects were headache, backache, dyspareunia, erythema nodosum noted in 5 patients. In post-partum women, lactation remained unaffected.

**Conclusion:** Patients prefer DMPA because it is non-coitus dependent, effective, long acting and other non-contraceptive benefits. No effect on lactation. The return of fertility takes 7-10 months from date of last injection, but it is completely reversible.

### KEYWORDS

DMPA, Postabortal, Postpartum, Irregular bleeding

#### BACKGROUND:

Population in the world is increasing day by day. India is having population of 1.2 billion as per census 2011. India was the first country in the world to launch a Family Planning Programme, as early as 1952, with the main aim of controlling its population.

Contraceptive counseling should be an integrated part of any abortion care and postpartum care to help women avoid another unplanned or unwanted pregnancy. Injection DMPA is a long acting [1], effective and reversible contraceptive method in lactating mother and postabortal patients. [2]

Since oral combined contraceptives pills are not advised in postpartum period due to their negative effect on lactation and the barrier contraceptives have high failure rates and requires high motivation, Injection DMPA one injection every three months makes compliance better and lesser side effects makes this contraception acceptable.

The inclusion of injectables in National Family Planning Programme is consistent with steps by Government of India towards reducing unmet need of family planning. [3]

The study is conducted with the purpose to view the safety and effectiveness of DMPA, its acceptance and its side effects in postpartum and postabortal women.

#### MATERIALS AND METHOD

##### TYPE OF STUDY:

The type of study was prospective, interventional, and a single centered study conducted in Department of Obstetrics and Gynecology at a tertiary health care centre, L G hospital, Maninagar, Ahmedabad.

##### Sample size:

90 women, both postpartum and postabortal, were included in the study group and they were studied over a period of 12 months without control group.

##### Study duration:

The study was conducted for a total duration of 12 months from June 2017 to June 2018.

#### Study Method:

Prior approval to conduct the study was taken from the Head of the unit and Institutional Ethical Committee.

Study group received Inj. DMPA 150 mg intra muscularly immediately after abortion and delivery before discharge from hospital (Day 2-Day 7 of their delivery). They were given DMPA every 3 months. [3]

#### INCLUSION CRITERIA:

Female patients age 18 years above in post-delivery and postabortal period.

Patients not suffering from any chronic illness or having any contraindication to progesterone.

Patients who have given a written informed consent and willing to report for regular follow up Patients desiring a long-term, highly efficacious, non-coitus dependent, private contraceptive method. [1]

#### Exclusion criteria:

Patients who did not consent for enrollment or regular follow up were excluded from the study.

Patients having contraindication to progesterone therapy. [4]

Written and informed consent was taken from the patients who were enrolled in this study. They were given options and explained well about the benefits and side effects of each and every contraception which can be used. Those who chose DMPA were taken in this study.

Women were counselled and a detailed physical and gynaecological examination was done. Injection Depot Medroxy Progesterone Acetate (DMPA) 150 mg was given deep intramuscular in the upper lateral gluteal region using 23-24 gauge needle.

All the females were asked to maintain a diary so that they could remember the date of their next appointment. Patients who were non co-operative and unwilling for it were not included in the study.

All women were followed-up for 12 months after the first injection, they were asked general questions like effect of DMPA on menstrual

irregularities[5], weight gain, milk secretion etc

A total of 90 women were included in the study over a period of 12 months and their follow-up visits were noted subsequently. The collected data was represented in tabular form.

**RESULTS:**

**1. Age distribution of patients (N=90):**

Table 1 shows that, majority 49(54.44%) patients were in the age Group of 18-25 years while 33(36.66%) patients were in the age group of 26-35 years where as 8(8.88%) were of more than 36 years.

**Table 1: Age Distribution**

Age (years)	No of patients	Percentage (%)
18-25	49	54.44%
26-35	33	36.66%
>=36	8	8.88%

**2. PARITY DISTRIBUTION:**

Out of 90 patients, most of patients, 37 (41.11%) were 2nd para and 5 patients (5.55%) were nulliparous, 9 patients (10%) were primi para, 26 patients (28.88%) were 3rd para, 12 patients (13.33%) were 4th para and 1 patient (1.11%) was >4th para. So, 84% patients were multi para and 10% were primipara.

In Rai L et al[6] study, 27.5% patients were multipara and 72.5% were primipara.

In Fonseca M et al[7] study, 44% patients were 2nd para which is comparable to present study.

**Table 2: Parity distribution and comparison with other studies**

Parity	No of patients	Percentage (%)	Rai L et al Study [6]	Fonseca M et al study [7]
Nulliparous	5	5.55%		
Primi para	9	10%	72.5%	21.5%
2 <sup>nd</sup> para	37	41.11%	27.5%(multipara)	44%
3 <sup>rd</sup> para	26	28.88%		34.5%(=3 <sup>rd</sup> para)
4 <sup>th</sup> para	12	13.33%		
>para 4	1	1.11%		

**3. TIME OF INJECTION:**

In present study out of 90 patients, 50 patients (55.55%) took injection post-delivery and 40 patients (44.44%) took it post abortion.

In present study, 55.55% patient were postpartum which is comparable to Rai L et al study in which postpartum patients were 51%.

In Nautiyal R et al[8] study, 42% patients were postpartum.

**Table 3: Time of injection(postabortal / postpartum)**

Time of injection	No of patients	Percentage (%)	Rai L et al study[6]	Nautiyal R et al study[8]
Post delivery	50	55.55%	51%	42%
Post abortion	40	44.44%	22.5%	

**4. Side-effects of DMPA**

In present study, irregular bleeding[4] was major side effect seen in 61.11% which is comparable to Rai L et al study[6] in which, it was 70%.

Following continous progesterone effect, the endometrium becomes atrophic and often ulcerate leading to irregular periods which can be treated by oral estrogens.

In present study, second major side effect was amenorrhoea seen in 29% patients which was 65% in Rai L et al study[6].

Irregular bleeding was more common with intial 2-3 injection which gradually subsided.

During study period, no patient became pregnant within 3 months of use of DMPA.

**Table 4: Side-effects of DMPA**

Side-effects	No of patients(N=90)	Percentage of patients	Rai L et al [6] study
Amenorrhea	26	28.88%	65%
Irregular menses	55	61.11%	70%
Heavy bleeding	5	5.55%	0%
Weight gain	3	3.33%	
Mood changes	6	6.66%	6.3%
Headache and others(back ache, erythema nodosum, dyspareunia)	5	5.55%	5%

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**5 Effect on Lactation:**

In present study, 89% per cent of primi para women were satisfied with their lactation in case of multipara 96% patient were satisfied with their lactation.

Singhalet[9] al studied the impact of short term use of DMPA on breast feeding performance and reported nearly hundred percent satisfaction in primipara regarding lactation amount. Higher continuation rates of 60% and more in the postpartum women were seen.

Therefore, DMPA is a feasible option during lactation when estrogen containing contraceptives are not favoured. When initiated immediately or at 6 weeks postpartum, DMPA has not been shown to decrease duration of lactation or infant weight gain.

**DISCUSSION:**

Majority 49(54.44%) patients were in the age Group of 18-25 years while 33(36.66%) patients were in the age group of 26-35 years where as 8(8.88%) were of more than 36 years.

Most of the patients recruited in the present study were in age group 18-25(54.44%). Because of prevailing custom of early marriage in our society, these were the group of women in reproductive age group, who attended family planning department in our centre in large number. Hence reception to contraceptive counselling was much better.

In present study most of the women had 2 or more children, thus had completed their family size. They choose DMPA as they feared from using permanent sterilization or IUCD as per their religious and cultural beliefs. In present study, better acceptance rates were found in multiparous females while in Rai et al[6] study, better acceptance rates were found in nulliparous.

In present study irregular bleeding[4] was major side effect seen in 61.11% while in Rai L et al study[6] it is 70% and second major side effect was amenorrhoea seen in 29% patients.

Irregular bleeding was more common with inial 2-3 injections, which gradually subsided.

In present study, weight gain noted in 3 patients over 1 year. Other side effects like headache, backache, dyspareunia, erythema nodosum were noted in 5 patients.

Though these effects are self-limiting, it is established that pretreatment counselling on expected side effects and their management improves acceptability of DMPA[10][11][12]

In post-partum women, lactation remained unaffected which is comparable to Singhalet study. Most studies have shown an increase or no effect on milk volume and no effect on quality of breast milk in terms of nutrition.

Therefore, DMPA is a feasible option during lactation when estrogen containing contraceptives are not favoured. When initiated immediately or at 6 weeks postpartum[13][14]. DMPA has not been shown to decrease duration of lactation or infant weight gain.

**CONCLUSION:**

The study concludes that DMPA is long acting, reversible and non coitus dependent contraception.

Since no patient got pregnant within 3 months of use of DMPA, it is a effective method of contraception following postpartum and postabortal period.

Apart from menstrual troubles, there are no significant major side (weight gain, mood changes, etc.) effects related to its use.

DMPA may cause a delay in the return of fertility, the return of fertility takes 7-10 months from date of last injection, but it is completely reversible.

Injectable DMPA use as a contraceptive in the immediate postpartum period was found to be a safe and effective alternative method with no deleterious effect on mother's milk secretion and infant growth.

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