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# **Original Research Article**

# Contraceptive methods adopted by women in immediate post-partum period in a tertiary care centre in Northern India: an observational study

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# **ABSTRACT**

**Background:** Contraception is the need of the hour in India. The family planning program in India offers a basket of choices. These choices are governed by the decisions of their partners, socio economic status of patients and even wishes of other family members.

**Methods:** This observational study was carried out in obstetrics and gynaecology department of ESIC medical college and hospital for a period of 1 year from March 2023 to February 2024. All the patients who were in immediate post-partum period after normal vaginal delivery, caesarean section and medical termination of pregnancy were included in the study.

**Results:** With the introduction of PPIUCD in national family programs more women are inclining towards long term spacing methods and not resorting to permanent sterilisation alone.

**Conclusions:** It is undeniable that most women do not desire a pregnancy immediately after delivery but are not informed enough about the methods of contraception they can use.

Keywords: PPIUCD, Permanent sterilisation, Depo provera, Contraception, Medical termination of pregnancy

### INTRODUCTION

In India the family planning programme was implemented in 1952 to reduce the rapidly growing population. <sup>1,2</sup> The utilisation of contraceptive methods among Indian women is related to several factors such as personal, interpersonal, partner related, service related and or method related. <sup>3</sup>

The limited choices and access to family planning services, poor quality of available services, cultural and religious opposition, fear of adverse effects and gender-based barriers are responsible for contraception in low resource countries such as India.<sup>4</sup> Currently the most preferred method for contraception is sterilisation.<sup>3</sup>

There is lack of knowledge about the temporary methods of sterilisation among the population and decreased accessibility to them.

# Aims and objectives

This observational study was carried out in obstetrics and gynaecology department of ESIC, Bihta from January 2022 to January 2023.

This study mainly focused on determining the most prevalent method of contraception in the immediate postpartum period in females attending this institution. The study was also undertaken to find out choices about contraception after delivery and awareness about postpartum insertion.

#### **METHODS**

# Study design, location and duration

Observational study was conducted at department of obstetrics and gynaecology, ESIC Medical College and Hospital, Bihta from March 2023 to February 2024.

#### Inclusion criteria

All the patients who were in immediate post-partum period after normal vaginal delivery, caesarean section and medical termination of pregnancy were included in this study. These patients had received counselling for postpartum contraception and given informed consent to IUCD insertion or sterilisation.

# Exclusion criteria

All patients having post-partum haemorrhage during delivery or premature rupture of membranes, infection was excluded from the study.

#### Procedure

Data was collected from the IPD of obstetrics and gynaecology department for a period of one year. Patients admitted to the IPD of obstetrics and gynaecology department who were labouring or were planned for elective or emergency caesarean sections were counselled by the doctor about the benefits of contraception and proper consent was taken. Patients who were posted for suction evacuation were also counselled for contraception and were included in the study. Data was also collected from the patients who underwent suction and evacuation for missed abortion, incomplete abortion etc.

# Statistical analysis

SPSS statistical software was used. Quantitative and qualitative data were analysed and aggregated to describe contraceptive patterns in post-partum period, using appropriate descriptive and summary measures.

# **RESULTS**

The study showed that out of 830 deliveries conducted in a year 540 underwent LSCS out of which about 190 patients, that is 35% opted for contraception. 18.5% primi gravida opted for PPIUCD insertion. 16.67% of multi gravida agreed for contraception during caesarean section out of which PPIUCD was more preferred than permanent sterilisation. Out of 290 normal deliveries only 50 agreed for contraception. 70% primi gravida and only 37.5% multi gravida agreed for post placental IUCD insertion. Only 25% patients who were multi gravida agreed for post-partum sterilisation. 30% of primi gravida and 37.5% multi

gravida also opted for injectable contraception Depo Provera. Out of 338 patients who had MTP, only 30% primigravidas and 41% multi gravida agreed for CuT insertion. 13.8% multi gravida agreed for sterilisation. 8% Primi gravida and 5.6% multi gravida patients opted for injection depo provera.

Table 1: Number of deliveries in a year.

| Parameters                | N   | %   |
|---------------------------|-----|-----|
| No. of deliveries         | 830 | 100 |
| No. of caesarean section  | 540 | 65  |
| No. of vaginal deliveries | 290 | 35  |

Table 2: Contraception in caesarean patients.

| Parameters                      | N   | %   |
|---------------------------------|-----|-----|
| No. of caesarean sections       | 540 | 100 |
| Availed contraception           | 190 | 35  |
| Did not avail any contraception | 350 | 65  |

Table 3: Contraceptive method prevalent among primi and multi gravida (n=540).

| Caesarean section patients | Availed contraception | %     |
|----------------------------|-----------------------|-------|
| Primi gravida              | 100                   | 18.5  |
| Multi gravida              | 90                    | 16.67 |

Table 4: Preferred method of contraception in multigravida post caesarean patients.

| Total patients | CuT | Tubal ligation |
|----------------|-----|----------------|
| 90             | 50  | 40             |

Table 5: No. of post vaginal delivery patients who availed contraception.

| No. of NVD | Availed contraception | No. of contraception |
|------------|-----------------------|----------------------|
| 290        | 50                    | 240                  |
| %          | 17.2                  | 82.7                 |

Table 6: Choice of contraception in multi gravida post NVD patients.

| Patients         | Availed contraception | CuT | DMPA | PPS |
|------------------|-----------------------|-----|------|-----|
| Primi<br>gravida | 10                    | 7   | 3    | -   |
| Multi<br>gravida | 40                    | 15  | 15   | 10  |

# **DISCUSSION**

The study showed that out of 830 deliveries conducted in a year 540 underwent LSCS out of which about 190 patients, that is 35% opted for contraception.

A study conducted by Hooda et al on immediate postpartum IUCD insertion 58.3% patients underwent PPIUCD insertion post-partum after LSCS and 41.7% patients had PPIUCD insertion after vaginal delivery.<sup>5</sup> In study conducted by Halder et al 44% patients had postpartum PPIUCD insertion after vaginal delivery and 52% after LSCS.<sup>6</sup> A study conducted by Kansu et al showed 43% patients opted for tubal ligation after previous one or two LSCS. <sup>7</sup> In a study conducted by Dhanpal et al to study the incidence of post-partum sterilisation 77.67% patients underwent tubal ligation during caesarean section. <sup>8</sup> In a study conducted by Jani et al on outcomes of post-partum IUCD insertion, the author found that 62% patients agreed to intra caesarean PPIUCD insertion. <sup>9</sup>

Table 7: Patients who opted for contraceptive post MTP.

| Patients      | MTP<br>(Total) | No contraception<br>N (%) | DMPA<br>N (%) | MTP with CuT<br>N (%) | MTP +ligation<br>N (%) |
|---------------|----------------|---------------------------|---------------|-----------------------|------------------------|
| Primi gravida | 124            | 76 (61.2)                 | 10 (8)        | 38 (30.6)             | -                      |
| Multi gravida | 214            | 86 (40.2)                 | 12 (12)       | 88 (41.12)            | 28 (13.08)             |

In our study about 30% primi gravida and 41% multi gravida opted for PPIUCD insertion post MTP. 13% multi gravida had MTP with permanent sterilisation simultaneously. 8% primi gravida and 5.6% multi gravida opted for injection depo provera after MTP. In a study conducted by Sushanta K Banerjee et al 81% women received contraception immediately after abortion care. 10 28% accepted PPIUCD insertion while 16% underwent permanent sterilisation.

There is a large gap between patients who availed contraception and those who did not avail contraception in our study. This hospital is situated in the outskirts of the main city and maximum patients visiting our hospital are from rural background. Patients do not have a say in the contraceptive method they would like to avail and are dependent on their family or decision of the spouse. This is the reason why there is short inter conception interval between 2 pregnancies putting females at risk of anaemia, malnutrition, pre term labour and birth. Postpartum period remains one of the most important and crucial times when women and couples are highly motivated and more receptive to family planning methods.

Couples need contraception throughout their reproductive years; initially it is required for delaying pregnancy and latter required as a spacing method. The choice and decision of contraception should be left to the patient the so called 'Cafeteria Approach'. The couples should have adequate information about all the options available and they reach the informed decision on their own. Lack of adequate knowledge or wrong information and beliefs are common hurdles in acceptance of contraception. 11,12 Fear of side effects and misconceptions is widespread and has been the most important explanation for non-use of contraception.<sup>13</sup> Post abortion care involves various health interventions for the woman along with emergency treatment of complications and proper counselling for contraception to avoid repeat abortions due to unplanned pregnancy.

#### **CONCLUSION**

Women empowerment through educational attainment and proper information on the available contraceptive methods can gradually change the dominance of preference for female oriented methods of contraception. In populations with family planning policies designed to increase contraceptive use; measuring the level contraceptive awareness also provides useful measure of success of information, education and communication activities and may help to identify program areas that need to be improved. Despite there being various methods of contraceptive easily available and accessible, incomplete knowledge and erroneous information about their use can still limit the proper use of contraceptive methods. Therefore, it is important to provide health information about family planning and its benefits especially for people who live in rural and small peripheral regions and public health policy makers should take both individual and community level factors into account when designing family planning programs.

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