# Gynecology & Reproductive Health

# Postpartum Contraception within the Gynecology and Obstetrics Department of Teaching Hospital Sanou Sourô in Bobo-Dioulasso (Burkina Faso)

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#### Keywords

Postpartum, Gynecology, Obstetrics,

#### Introduction

Postpartum family planning enables people to have the desired number of children and to determine birth spacing, which consists in using numerous, and effective contraceptive methods [1]. According to Cleland [2], family planning can prevent more than 30% of maternal deaths and 10% of child deaths if couples allow more than two years to elapse between pregnancies. Within the World Health Organization, it is now recognized that the immediate postpartum period constitutes an opportunity to boost postpartum family planning [1].

We undertook a cross-sectional study within the Gynecology and Obstetrics Department to assess contraceptive prevalence in the postpartum period in order to propose strategies to boost the uptake of contraceptive methods during this period. Birth spacing is a major strategy for reducing maternal and perinatal mortality [1].

#### **Patients and Methods**

This was a cross-sectional descriptive study conducted within the Gynecology and Obstetrics Department of Sanou Sourô Teaching Hospital over a six month period, from January 1st to June 30, 2019 included. Information was collected from a survey form, from clinical records, and registers (delivery room, counseling, operating room, postpartum family planning). The parameters studied included sociodemographic characteristics, clinical assessment of patients, profile of the counseling agent, contraceptive methods used, and the related side effects and complications of contraceptive methods. Data entry and analysis were performed through Word and Epi info version 7.0 software.

### **Results** Epidemiology

#### • Frequency

From January 1st to June 30th, 2019, we recorded 1,850 deliveries among which 650 were made by cesarean section. Among these deliveries, 900 have received postpartum counseling for the choice of a contraceptive method, which corresponds to 48.64%. The other 950 did not receive any counseling. Out of the 900 clients who received counseling, 396 adopted a contraceptive method, a rate of 21.40%.

#### • Sociodemographic characteristics

Parameters		Number	%
Age (years)	≤14 years	2	0.51
	15-29 years	212	53.53
	30-39 years	160	40.4
	≥40 years	22	5.56
Parity	Primiparous	87	21.97
	Pauciparous	166	41.92
	Multiparous	106	26.77
	Grand Multiparous	37	9.34
Occupation	Housewife	312	78.79
	Trader	34	8.58
	Civil servant	26	6.57
	Pupil/Student	24	6.15
Marital status	Married	389	98.23
	Unmarried	7	1.77
School level	None	162	40.91
	Primary	143	36.11
	Superior	82	20.17
	Secondary	9	2.27
Origin	Urban	153	38.66
	Rural	243	61.34

#### Clinical assessment of patients based on WHO 2016 criteria

An interview to look for contra-indications to a given contraceptive method

#### **Contraception history**

Women who had previously used a contraceptive method represented 10.97%. Implants were the methods used in 50% of cases.

#### Medical and surgical history of patients

Medical and surgical history of patients: High blood pressure: 1case (0,25%) Sickle cell disease (SC): 4cases (1.01%) Caesarean history: 132cases (33.33%) Salpingectomy history: 4 cases (1.01%)

#### **Clinical examination**

The clinical examination consisted of taking vital signs (BP, pulse, temperature, respiratory rate, weight) plus evaluation of the state of consciousness including the general condition, the coloring of mucous membranes and conjunctiva, the abdomen suppleness, uterine retraction, absence of bleeding, absence of soft tissue lesions, suppleness of thighs and calves. No abnormalities were noted after this clinical evaluation of the clients, thus allowing the adoption of the chosen contraceptive method in compliance with the WHO admissibility criteria.

# Description of the Various Contraceptive Methods Used by Patients

All the 900 clients received counseling either during prenatal visits, or before cesarean section, during the latency phase of labor, or in the postpartum period. Counseling was systematically repeated before cesarean section, for scheduled cesarean sections, or in the postpartum period before the method was administered.

The agent 's profile in charge of the counseling was as follows:

- Gynecologists: 8 cases (2.03%)
- Physician in specialization: 298 cases (75.25%)
- Midwives 87 cases (21.97 %)
- Interns trainees: 3cases (0.75%)

#### • Intrauterine device

In our series, 208 patients have chosen the post-partum intra uterine device, corresponding to 52.53% of all the methods used.

#### **Insertion Period**

The distribution of the IUD according to the insertion period was as follows:

- Post placental: 33 cases (15.86%)
- Postpartum: 3 cases (1.44%)
- Per-caesarian section: 172 cases (82.70%)

#### **IUD complications**

Clients were followed up for six months. We did not observe any complications cases such as IUD expulsion,

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missing threads, or pelvic inflammatory disease during our study.

#### Side Effects

The distribution of side effects among IUD users was as follows:

- Pelvic pain: 8cases (3.85%)
- Spotting: 6cases (2.88%)
- Uterine cramps: 4cases (1.92%)
- Cycle problems: 3cases (1.45%)

#### Stoppage

During the six-month follow-up period, our clients haven't giving up with IUD method.

#### Post-insertion follow-up

As for the post insertion follow-up, an appointment is scheduled on the 42nd day. Beyond this date, the client can come back if necessary.

In our series, 100% of the patients came on the 42nd day. The clinical examination was normal. For those whose IUD thread could not be seen on speculum examination, we perform an ultrasound examination to verify the position of the IUD in the uterine cavity.

#### • Desired duration for IUD use

The average desired duration for all contraceptive methods was 4 years.

The average desired duration was 4.2 years for the 208 clients who chose IUD,.

Users per desired duration were distributed as follows:

- 4years: 107 cases
- 6 years: 85 cases
- -7 years: 16 cases, 10 years

#### • Implants

In our series, 175 clients had adopted implants as a postpartum contraceptive method, representing 44.19% of all contraceptive methods.

#### **Implants type**

According to the implant type, we found 161 cases of jadelle (92%) and 14 cases of implanon (8%).

#### Complications

During the follow-up, no complications were noted in the implant users.

#### Side effects

Side effects were observed in 17 cases. These included menstrual cycle disorders in 12 cases (6.85%) and spotting in 5 cases (2.86%).

#### Stoppage

We noted one case of jadelle user (0.57%) who gave up with this method due to spotting after three months of use. This client switched to the male condom as a new method.

Implant and IUD use accounted for 96.71% of all contraceptive methods.

#### • Desired duration for Implant use

For the 175 clients who chose implants, the average desired duration was 3.6 years.

Users per desired duration were distributed as follows:

-3 years: 104 cases

-4 years: 24 cases

- 5 years: 47 cases

#### • Pills

In our study, 3 clients chose the pill as their contraceptive method, corresponding to 0.76% of all contraceptive methods. We did not observe any complications, side effects or stoppage among pills users.

#### **Desired Duration for Pills Users**

The desired duration for the 3 users was as follows:

-3 years: 2cases

-5 years: 1cases

Particularly in developing countries

#### • Tubal ligation

One client opted for tubal section ligation, corresponding to a rate of 0.25%. She was a great multiparous woman with 3 previous cesarean sections.

#### Discussion

#### **Study Limits**

Counseling could only be performed in 48.64% of women who delivered for the following reasons:

-Lack of training and motivation of staff for counseling

-Many pregnant women did not receive any counseling on PPFP during ANC.

-Most pregnancies are not followed up within the Teaching Hospital Sanou Sourô of Bobo-Dioulasso

#### Frequency

The frequency of contraceptive use in our study was estimated at 21.40%. The emphasis was laid on the long-term contraception which has been established in Burkina Faso since 2015. Our rate is lower than those of Vanya [3] in Hungary, Blangis [4] in Nantes and Berta [5] in Ethiopia who respectively reported 22.5%, 27.4% and 45.8%. Cissé [6] in a study in Dakar on long-term methods reported a frequency of 51.4%. Our low rate could be explained by the fact that more than half of our deliveries (51.36%) could not receive counseling on post-partum family planning. In addition, these countries have a long experience of postpartum family planning compared to ours which is in its beginning phase.

#### **Socio-Demographic Characteristics**

The average age in our series was estimated at 28 years. It is close to those of Blangis [4] in Nantes and Eliason [7] in Ghana who reported an identical average age of 29.9 years and isbelow that of Vanya [3] in Hungary who reported an average age of 31.3 years.

In general, most postpartum contraceptive users were young women with an average age between 26.9 and 31.3 years [7-11]. Our average parity in our series was 3, which is close to that of Gejo [9] in Ethiopia who reported an average parity of 2.76. It is higher than that of Berta [5] who reported an average parity of 2. Married women represented 78.28% of our population. Eliason [7] in Ghana, Blangis [4] in France and Berta [5] in Ethiopia, respectively reported 43.3%, 90.7% and 95.33%. Postpartum contraception is a necessity for birth control among married women. Educated women accounted for 59.09% in our series. Pradhan [12] in India, Berta [5] in Ethiopia and Eliason [7] in Ghana respectively reported 62.3%, 76.8% and 91.7%. The education level is an important factor in the knowledge and use of contraceptive methods in postpartum period.

#### Antenatal care (ANC)

In our study, 68.18% of pregnant women had made at least 3 ANC. Our rate is lower than that of Abraha [8] in Ethiopia who reported 92.9% in his series. With WHO's new approach on post-partum family planning (PPFP), ANC is an opportunity to increase access to postpartum contraceptive methods through counseling. In addition, outside of ANC, the latency phase and postpartum period are also opportunities to catch up or enhance postpartum family planning counseling.

#### **Contraceptive methods used**

#### • IUD

Today, the IUD is a contraceptive method, which is gaining renewed interest worldwide. It is a safe and effective method for postpartum contraception [13-17].

In our practice, insertion is preceded by counseling during ANC, in the latency phase, or in the immediate postpartum period. This counseling increases the uptake of this postpartum contraceptive method [17]. It can be inserted during cesarean section or vaginally in the postpartum period (postplacental, postpartum). An American NGO (MCHIP) [15] under WHO direction carried out a multicentre study on IUD use. It involved 6 countries (India, Paraguay, Zambia, Kenya, Rwanda, El Salvador): IUD was inserted during a cesarean section and by vaginal delivery in the postpartum period.

In our series, out of the 208 cases of IUD insertion, 172 were inserted per cesarean section. Thiam [18] in Senegal reported a rate of 50.48% for per-caesarean insertion. This procedure is an ideal time to insert IUD for women who have opted for this method in case of operative indication. Our insertion rate b by the vaginal route was 15.86%. Thiam [18] in his series reported 49.52% for the vaginally insertion route. As for the side effects related to the IUD, we noted pelvic pain in 3.85% of cases. Our rate is below that of Gueye [14] who reported a rate of 6.8%.

A rate of 2.88% was found for spotting. Gueye [14] in Dakar reported a rate close to 2.3%. No method-related complications were found.



Figure 1 : IDU



Figure 2 : Implants

## • Implants

Implants were introduced in 1992in Burkina Faso. Initially, only one levonorgestrel-based molecule (Norplant) was available. Since 2014, two molecules (Implanon and Jadelle) have been available. Jadelle (levonorgestrel) has a 5 year-duration whileImplanon (etonorgestrel) has a 3-years duration. The release of etonogestrel induces anovulation by cutting off the LH peak. This subcutaneous device is active for three years under cover of a normal weight (Body Mass Index below 25). The contraceptive effect is immediate when it is inserted during the first five days of the cycle and disappears in the week following its removal.

Efficiency is close to 100% in women whose Body Mass Index is below 25. The main drawback remains the clinical tolerance, which varies greatly from one woman to another. It is important to warn women about the risk of spotting, which frequently occurs during the three months following insertion and which persists beyond that time in approximately 10% of patients. It is also advisable to note that about one-third of women who have an implant are in amenorrhea. This condition does not present any risk to patients, but can be uncomfortable and can bring some women to request premature removal of the device. Implant can be prescribed in the immediate postpartum period and does not interfere with lactation [69]. In our series, implants represented 41.19% of all postpartum contraceptive methods. Our rate is above that of Dasgupta [19] in Malawi, Blangis [4] in France and Morhe [1] in Ghana who respectively reported 4.5%, 6% and 20.7%. In its national family planning policy, Burkina Faso is laying more emphasis on long-term methods for greater effectiveness and better maternal and neonatal health.

# • LAM

The rate of LAM use in our series was 2.02% for all the postpartum contraceptive methods. Our rate is lower than that of Berta [5] in Ethiopia who reported a rate of 6.5% for LAM.

Since 1994, Burkina Faso has initiated a national policy to promote breastfeeding with the (Baby-Friendly Hospital) initiative undertaken by UNICEF. Based on literature, the advantages of breast milk are innumerable: protection of the newborn by immunoglobulins, nutritional and growth factors [32]. According to Mercier [22] in France, the rate of breastfeeding was around 16% in 2016.

# • The Microprogestin Pill

In our study, the rate of pills use was estimated at 0.76%, a low percentage explained by the fact that 96.71% of the clients have chosen long-term methods. Our rate is below that of Berta [5] in Ethiopia and Eliason [7] in Ghana, who respectively reported 22.2% and 20.6% for pills.

## • Tubal ligation

In our series, we noted one case of tubal section ligation (0.25%). Eliason [7] in Ghana and Vanya [3] in Hungary reported the same rate estimated at 2.7%. Blangis [4] in France reported a rate of 0.3% in his series. This method of permanent sterilization is often requested by multiparous and elderly clients [3,4,7].

# Conclusion

Postpartum contraception is increasingly used around the world. In Burkina Faso, since 2015, the use of contraceptive method has been steadily increasing in the postpartum period. In our department, PPFP counseling is used during prenatal consultations, the latency phase of labor and the postpartum period. The widespread use of PPFP, especially in developing countries, could help in reducing maternal and perinatal mortality.

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