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Contraception among Women Aged 35 and over at the University Hospital Center of Brazzaville

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Abstract

Objective: To study contraception among women aged 35 and over at the University Hospital of Brazzaville. **Population and Methods:** This was a retrospective descriptive study, conducted from April 1st 2017 to January 31st 2022 in the Obstetrics and Gynecology Department of the University Hospital of Brazzaville, including women aged 35 years and over who had received a contraceptive method. The study variables were sociodemographic, reproductive, clinical and contraceptive method related. **Results:** Two hundred and thirty customers were collected during the study period, *i.e.*, 10.8% of the patients who received contraception. They were 38.4 ± 3 years old on average, had secondary education (46.1%), were of low socioeconomic status (54.3%), lived with a partner (98.7%) and came from an urban area (97.4%). They were multigravida (85.2%), and multiparous (63.9%) with an average of 4 living children. The indications were of two types: convenience (26.2%) and medical (73.8%). The most commonly used contraceptives were implants (72.2%) and injectable progestin (20.5%). **Conclusion:** The indication for contraception for women over 35 years of age at the University Hospital Center of Brazzaville is more medical, with the use of long-acting contraceptives.

Keywords

Contraception, Women Aged 35 and over, Brazzaville

1. Introduction

Contraception is one of the planning methods that helps prevent pregnancy [1]. Thus, its use allows for the spacing of births and the reduction of unwanted pregnancies, which are sources of clandestine abortions and maternal mortality [2].

After the age of 35, the possibility of pregnancy remains and its occurrence is considered risky both for the mother, who is exposed to several chronic diseases (hypertension, diabetes, obesity, thromboembolic diseases), and for the fetus (malformation risk) [3].

Therefore, from this age onwards, contraception should be specific, taking into account the risks of degenerative pathologies.

With this in mind, this study set out to study contraception among women aged 35 and over at the University Hospital Center of Brazzaville (UHC-B).

2. Population and Methods

This was a retrospective descriptive study conducted from April 1st, 2017 to January 3st, 2022 at the University Hospital of Brazzaville. Customers aged 35 years and older who had received contraceptive methods were included. Customers aged 35 years and older who started the current contraceptive method before that age were not included. The database was performed using Microsoft Excel version 2010. Stata 13.1.0 software was used for statistical analysis. Our results were represented as proportions for qualitative variables, and as mean and median for quantitative variables.

3. Results

During the study period, we recorded 230 women aged 35 or over among the 2119 who received contraception at the University Hospital Center of Brazzaville, *i.e.* 10.8%.

The average age was 38 years. The 35 - 39 age group was the most represented. These women were all educated. Primary and secondary education levels represented more than 80%. As for marital status, they were in a couple in 98.7% of cases (Table 1).

Table 1. Sociodemographic characteristics of women aged 35 years and over who received contraception from April 1st, 2017 to January 31st, 2022.

	N	%
Age (years)		
[35 - 39]	156	67.8
[40 - 44]	63	27.4
[45 - 49]	11	4.8
Level of education		
Primary	96	41.7
Secondary	106	46.1
Superior	28	12.2
Socio-economic level		
Bottom	125	54.3
Top	105	45.7

Continued

Marital status		
Single	3	1.3
In couple	227	98.7
Provenance		
Rural	6	2.6
Urban	224	97.4

Regarding the reproductive characteristics, 85% of the women were multigravida and 63.9% were multiparous. They had at least 4 children in 60% of cases. The mode of delivery was caesarean section in 46% of cases and vaginal delivery in 54% of cases (Table 2).

Table 2. Reproductive characteristics of women aged 35 years and older who received contraception from 1st April 2017 to January 31st, 2022 at Brazzaville University Hospital.

	N	%
Gravidity		
Paucigravida	34	14.8
Multigravida	196	85.2
Parity		
Nulliparous	2	0.9
Primiparous	8	3.5
Pauciparous	73	31.7
Multiparous	147	63.9
Living child		
0	3	1.4
1 - 3	88	38.2
≥4	139	60.4
Age of last child		
0 - 1	144	63.4
2 - 4	60	26.5
≥5	23	10.1
Delivery		
High way	103	45.2
Lower track	125	54.8

Contraception of convenience for birth control accounted for 22% of cases. The medical indications were reported in Table 3.

Levonorgestrel implant in 54% of cases, Etonogestrel subdermal implant in 18% of cases, and medroxyprogesterone acetate in 14% of cases (Table 4).

Table 3. Indications for contraception among women aged 35 and over from 1st April 2017 to 31st January 2022 at the Brazzaville University Hospital.

	N	%
Convenience		
Birth spacing	8	3.5
Birth control	52	22.7
Medical indications		
HTA	37	16.1
Diabetes	15	6.5
Heart disease	4	1.7
Asthma	2	0.9
Post C-section	103	44.7
Post-EPU	6	2.6
Post Myomectomy	3	1.3

Table 4. Contraceptives used among women aged 35 and over from April 1st, 2017 to January 31st, 2022 at the Brazzaville University Hospital.

	N	%
Long term		
Etonogestrel (Implanon*)	42	18.3
Levonorgestrel (Norplant*)	124	53.9
Copper IUD	2	0.8
Short term		
Medroxyprogesterone (Depo provera*)	32	14
Norethisterone (Noristerat*)	15	6.5
Microprogestatif (Microgynon*)	15	6.5

4. Discussion

As the study was retrospective, it did not allow us to make the link between the clinical condition and the prescription. Similarly, the effectiveness and tolerance could not be assessed.

Women aged 35 years and older represented 10.8% of all contraceptive users at UHC-B during the study. This low representation in our series can be explained by several factors. Indeed, from the age of 35, there is a progressive decline in fertility, which could justify the low use of contraceptive measures. In addition, the pronatalist nature of African society does not motivate women to use contraceptive measures, unlike Western or Asian societies such as China, where the one-child policy has long promoted contraception at all ages [4] [5].

The customers in our series had a mean age of 38 years and 4 months ± 3 years with extremes of 35 years and 49 years. Customers under 40 years of age accounted

for more than half of the cases. However, those aged 45 to 49 years accounted for less than 5% of the cases. These results highlight the finding about the frequency of contraceptive use in our series. Indeed, this frequency decreases with age and could be explained by the decrease in fertility. Moreau in Dakar [6] reports the same finding because he worked with a population similar to ours.

The customers were in couple in almost all cases. These results are similar to those of several African authors [6]-[11]. Indeed, customers living with a partner were more sexually active and thus more exposed to pregnancy. This result could be explained by the fact that our study was conducted in an urban area and that customers living in rural areas only attended urban facilities for medical reasons.

In the Republic of Congo, the literacy rate has been 95% for several decades [12], which justifies the fact that the customers in our series were all in school. On the other hand, countries with low national literacy rates also report a low frequency of contraceptive clients in their series, as is the case in Senegal with Moreau in Dakar, who reported that in their study 42.7% of the customers did not go to school. This difference is explained by the low literacy rate in their context (50%) [6] [13].

Most of our customers were multigravida (85.2%) and multiparous (63.9%) with an average of four children. These results can be explained by the advanced age of our clients and also by the need to limit births among these multiparous women. Our results are comparable to those of Maraux in France, who reported that black immigrants had more children than the French national average [14].

The indications for contraception were of two kinds: convenience and medical.

Indications of convenience concerned a quarter of our customers. In most cases, these customers sought contraception in order to limit births. This could be explained by the high parity of our customers. Also, the limitation of births linked to the change in lifestyle would explain these results. Thus, the increase in the standard of living encourages older couples to limit births [15] [16].

As for medical indications, they concerned two-thirds of our customers. Post-caesarean section ranked first, followed by high blood pressure and diabetes. Post-caesarean contraception is used for several reasons: spacing and limitation of births, and pathologies related to the terrain. Cardiovascular pathologies require effective contraceptive measures, which would justify the high frequency of these pathologies in our series.

Long-acting methods are preferentially prescribed in women aged 35 and over, with implants predominating in almost all cases. This is justified by the existence in this population of cardiovascular and metabolic risk factors, which would guide the prescription, taking into account the benefit/risk ratio, as recommended by the CNGOF, WHO and ANSM [17]-[20].

Among the long-acting methods used, the levonorgestrel implant ranked first with 53.9%. Our results are consistent with those of Moreau in Dakar [6].

Regarding short-acting contraceptives, injectable macro-progestins were the most widely used, notably Medroxyprogesterone and Norethisterone. The preference

for injectable routes would be related to the vagaries of age to improve compliance.

5. Conclusions

This study revealed a profile of customers who were mostly under 40 years of age, living with a partner, less educated and with a low socioeconomic level. They are multiparous with an average of four living children.

The indications are essentially medical.

Long-term methods were the most prescribed, especially implants, taking into account the customer's clinical status.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix

ACT SHEET

CONTRACEPTION IN WOMEN AGED 35 YEARS AND OLDER AT THE CHU-B

Record number

IDENTIFIER

Surnames and first names:

Age:

Marital status: ☐ single: ☐ couple: ☐

Address:

Profession:

Client's Education Level: None: ☐ Primary: ☐

Secondary: ☐ Upper: ☐

Age of spouse:

Spouse's Occupation:

Spouse's level of education:

PERSONAL HISTORY

MEDICAL

1. Asthma: Yes ☐ No ☐
2. Heart disease: Yes ☐ No ☐
3. Contraception: Yes ☐ No ☐

If so, which one: ☐☐☐☐☐☐

4. Diabetes: Yes ☐ No ☐
5. Sickle-cell anemia: Yes ☐ No ☐
6. Epilepsy: Yes ☐ No ☐
7. Hepatitis: Yes ☐ No ☐
8. HIV: Yes ☐ No ☐
9. HTA: Yes ☐ No ☐
10. Migraine: Yes ☐ No ☐
11. Obesity: Yes ☐ No ☐
12. Venous thrombosis: Yes ☐ No ☐
13. Tuberculosis: Yes ☐ No ☐
14. Processing in progress: Yes ☐ No ☐

If so, which one: ☐☐☐☐☐☐

CHIRURGICAUX

GYNAECOLOGICAL

1. Dysmenorrhea: Yes ☐ No ☐
2. Non-regular menstrual cycle: ☐
3. Duration of menstruation: ☐
4. Date of last menstrual period: ☐
5. Previous contraceptive use: Yes ☐ No ☐

OBSTETRICS

1. Gesture: ☐

2. Parity: ☐
3. Number of children alive: ☐
4. Name interruption: ☐
Pregnancy Volunteer
1. Delivery: vaginal: ☐
Caesarean section: ☐
2. Last Age Child: ☐

HABITS

1. Alcohol: Yes ☐ No ☐
2. Tobacco: Yes ☐ No ☐

FAMILY HISTORY

1. Heart disease: Yes ☐ No ☐
2. Cancer yes which one(s)? ☐☐☐☐☐☐
3. HTA: Yes ☐ No ☐
4. Diabetes: Yes ☐ No ☐
5. Obesity: Yes ☐ No ☐

CLINICAL STATUS

1. Risk Factor: Yes ☐ No ☐
2. Blood pressure: ☐
3. Weight (BMI): ☐
4. E.g. complete gynaecological: Yes ☐ No ☐
5. Uterine fibroin: Yes ☐ No ☐
6. Menorrhagia: Yes ☐ No ☐
7. Fasting blood glucose: ☐

CLIENTS' MOTIVATION FOR CONTRACEPTION

PERSONAL DECISION: Yes ☐ No ☐
1. Birth Spacing: Yes ☐ No ☐
2. Birth limitation: Yes ☐ No ☐
3. Other Reason: ☐☐☐☐☐☐
4. NSP: ☐
COUPLE DECISION: Yes ☐ No ☐
1. Birth Spacing: Yes ☐ No ☐
2. Birth limitation: Yes ☐ No ☐
3. Other Reason: ☐☐☐☐☐☐
4. NSP: ☐
MEDICAL DECISION: Yes ☐ No ☐
1. Birth Spacing: Yes ☐ No ☐
2. Birth limitation: Yes ☐ No ☐
3. Other Reason: ☐☐☐☐☐☐
4. NSP: ☐
DECISION AMICALE/PARENTALE: Yes ☐ No ☐
1. Birth Spacing: Yes ☐ No ☐
2. Birth limitation: Yes ☐ No ☐

3. Other Reason: ☐☐☐☐☐☐
4. NSP: ☐

METHODE CONTRACEPTIVES

AVAILABLE AT THE CHU-B

1. Implant: Yes ☐ No ☐
   a-rod: Yes ☐ No ☐
   b-rod: Yes ☐ No ☐
2. DMPA: Yes ☐ No ☐
3. IUDs have with non eggs: ☐
4. Pill: Yes ☐ No ☐
7. Injectable: Yes ☐ No ☐

CHOICE METHOD

1. Implant: Yes ☐ No ☐
2. DMPA: Yes ☐ No ☐
3. IUDs have with non eggs
4. Pill: Yes ☐ No ☐
5. Injectable: Yes ☐ No ☐

CURRENTLY

Less of 1 the TTT: ☐
1 an TTT: ☐
1 to 2 years TTT: ☐
2 to 3 years old TTT: ☐
More than 3 years TTT: ☐

CONTROL FREQUENCE

once a month: ☐
once a quarter: ☐
once every 6 months: ☐
once a year: ☐

CONTROL OBSERVANCE

Properly insured: ☐
Poorly insured: ☐
Motif: ☐☐☐☐☐☐

SIDE EFFECTS METHOD

Yes ☐ No ☐
If so, which one(s): ☐☐☐☐☐☐