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EPIDEMIOLOGICAL PROFILES AND COMPLICATIONS OF HYSTERECTOMIES AT THE GENERAL HOSPITAL OF YAOUNDÉ AND THE GYNECO-OBSTETRIC AND PEDIATRIC HOSPITAL OF YAOUNDÉ/CAMEROON

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ABSTRACT

Hysterectomy is the surgical removal of the uterus. It may be total or partial. It may also involve the removal of the cervix, ovaries, fallopian tubes and other surrounding structures. With the aim to study the epidemiological, clinical and therapeutic aspects of patients that underwent hysterectomy at the general hospital and gyneco-obstetric and pediatric hospital of Yaoundé (GHY and GOPHY), we carried out a descriptive retrospective study of 8 years going from January 2010 to January 2018. Collected data were analyzed with the software Sphinx V5 and Microsoft office 2016. We recorded 382 cases of hysterectomy out of 8 511 surgical interventions giving an overall frequency of 4.49%. The most represented age group was that of [41-50] years with 40.6% and the mean age of the sample was 46.39 years with extremes at 18 years and 83 years. The indications for hysterectomy was dominated by polymyomatous uterus followed by uterine cervix cancer with respectively 47.90% and 11.30%. The rate of

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abdominal hysterectomy dominated with 94%. Total hysterectomy was the case of 73.3% of the surgeries. Perioperative complications was dominated by bleedings in 19.90% of the cases. The rate of mortality was of the order of 0.8%.

Key words: hysterectomy, epidemiology, GHY, GOPHY

INTRODUCTION

The Uterus, symbol of femininity and fertility has been for a long time rendered responsible of all woes supposed or real of the woman. Due to the development of modern medicine and particularly surgery and anesthesiology, hysterectomy became a current intervention [1]. The choice of the surgical approach has been for long a question of school opposing vaginal surgeons and laparoscopic surgeons whereby the practical habits and techniques privileged a specific approach to the other [2]. Among the most practiced techniques, we have the approach by laparotomy, the vaginal approach, and the laparoscopic approach.

Hysterectomy is one of the most practiced surgery in women besides caesarian sections in developed countries. It is estimated about 70 000 hysterectomies every year in France [3], about 600 000 in the USA and 72 000 in England [4]. The percentage of hysterectomies in women aged 60 years and above in the USA is 37%, 20% in England, 15% in Italy, 12% in Sweden and 5.8% in France [5]. In Africa, there is limited statistical data known about the subject but some of the authors who worked on the subject obtained the following data: In the university hospital center of Conakry, the study carried out by Baldé and al. obtained a frequency of 4.4% [6], Buambo and al. obtained 6.6% [7]; in the DRC, Keita and al. obtained 2.54% [8]; in Bamako mali, Kouma obtained 11.7% [9]; 6.20% for Mariam Traore [10] at Daou Kayes in Mali. This frequency is 0.53% for Mutenganga and al. in Burundi, 0.45% for Diouf and al. in

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Senegal, 0.07% for Sosthème MagièTsonga and al. in Gabon and 0.11% for Ozumba and al. in Nigeria [10].

In Cameroon, studies concerning obstetrical hysterectomy carried out by Dongmo and al. in Yaoundé in 2003 [11] obtained an incidence rate of 0.4% and another study carried out by Tebeu and al. [12] in 2013 at the CHU of Yaoundé obtained a prevalence of 1.25%. For all these data obtained from different studies carried out here and abroad, we decided to study the epidemiological, clinical and therapeutic aspects of patients who underwent hysterectomy so as to characterize its profile among other gyneco-obstetric surgeries in Cameroon.

GENERAL OBJECTIVE

Describe the epidemiological, clinical and therapeutic aspects of hysterectomies at the GHY and the GOPHY

SPECIFIC OBJECTIVES

a- Determine the frequency of hysterectomy
b- Identifier the sociodemographic profiles of the patients
c- Identifier related complications of hysterectomies

METHODOLOGY

1- Study design and setting

The study design was a descriptive retrospective study that retrieved data from patients' files going from January 2010 to January 2018, either a period of 8 years. This study was properly carried out during the period of July 2018 to November 2018 regarding data collection at the unit services of the GHY and the GOPHY.

2- Study subject and method

The population of study in this design concerned all the patients, independent of their place of origin, their matrimonial state and the means of admission be in emergency of not, their units of origin; who underwent hysterectomy within study period at the

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stated hospitals above. Our sampling mode was an exhaustive non probabilistic sample. As such, were included in this study all the women who underwent a surgical hysterectomy with a clear, clean, complete and exploitable medical file present in the hospitals of study besides, were not included to this study, patients available medical files that were not complete and could not be exploited.

The principal tool of data collection was an established questionnaire that included sociodemographic characteristics, clinical features and patients follow up data.

Method: firstly, we made a census of all the files of hysterectomies during study period from the registers of the units of gynecology and the Room Theater of general surgery. Secondly, we collected data concerning surgical indications, observations during surgery and different complications from surgical report of patients' files.

Thirdly, we collected data concerning epidemiological and clinical aspects of patients as well as diagnosis at admission motivating the indication of hysterectomy from patients' medical files. And lastly, data concerning the length of hospital stay and post-operative complications from medical and nursing files.

3- Statistical data analysis

A computer with the package of Microsoft Office 2016 was used for the treatment and data acquisitions. Data analysis was made possible by the aid of the software SphinxV5 and Excel 2016. Results generated are presented in the form of tables and graphs.

RESULTS

1- Frequency

During this period of study, we registered 382 cases of hysterectomy out of 8 511 surgical interventions, either a frequency of 4.49% of the overall surgeries.

2- Sociodemographic profiles of patients

a- Distribution of patients following age

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The most represented age group was that of [41-50] years with an average age of 46.39 years for extremes ranging from 18 years to 83 years.

Table1: patients distribution with age

AGE (Years)	Number (n)	Frequency (%)
41- 50	**155**	**40.60%**
51-60	79	20.70%
31-40	74	19.40%
20-30	38	9.90%
More than 60	33	8.60%
Less than 20	3	0.80%
Total	382	100.00%

b- Distribution of patients following their gynecological background

The figure below reveals that, myoma stood for the most represented past medical concern of the sample size with 11.50%

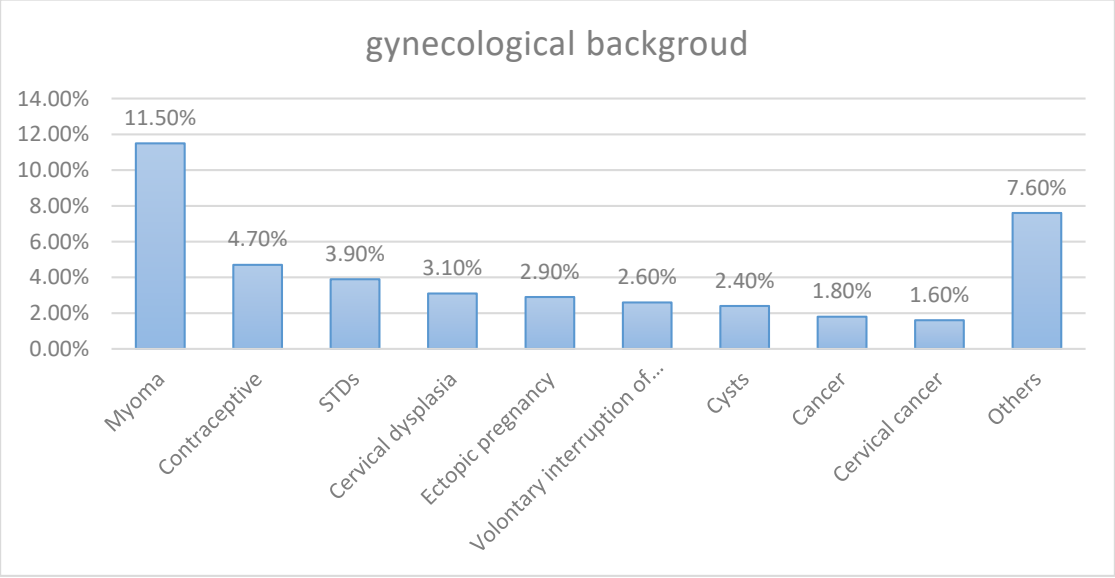

Figure1: patients distribution following medical background

c- Distribution following gestation

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Figure 2 reveals that, the multi-gestation women were mostly represented with 36.90%

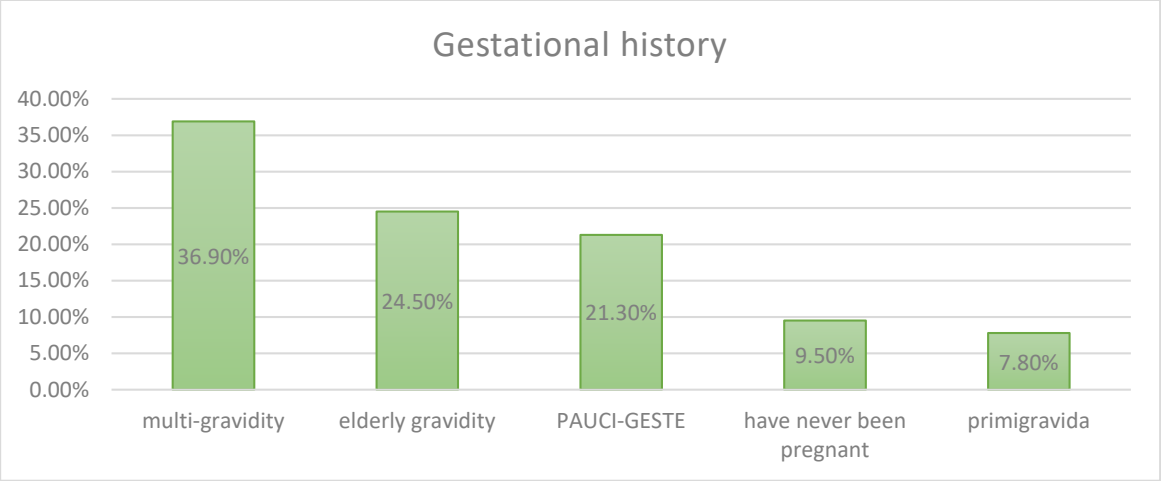

Figure2: patients distribution following gestation

d- Distribution following women parity

Here, prim parity represented 10.70% of the sample compared to multi-parity women that stood for 35.70% as seen below.

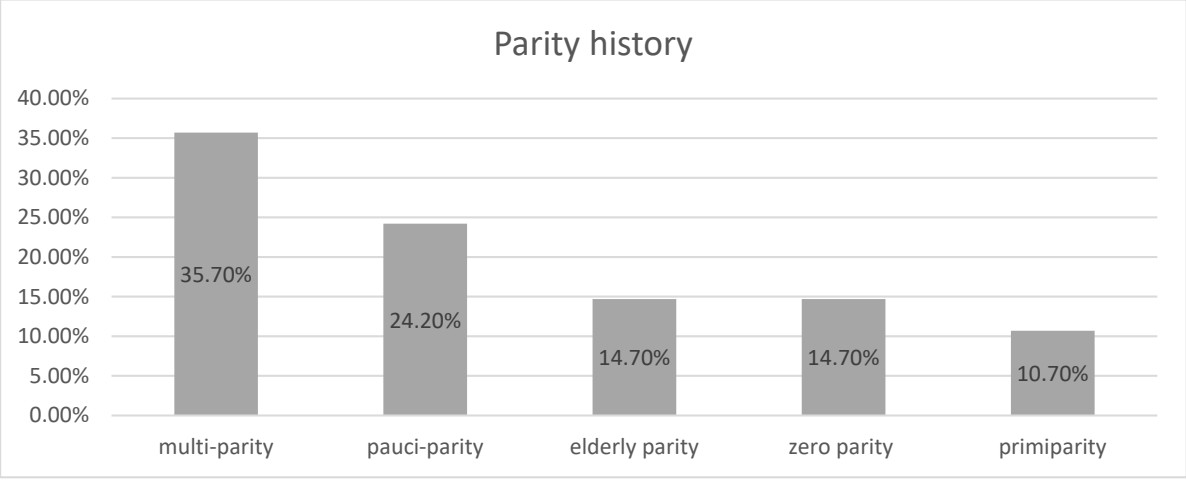

Figure3: patients distribution following parity

e- Distribution of patients following their menopausal statute

Non menopaused women were the most represented with a rate of 67% as seen in fig4 below.

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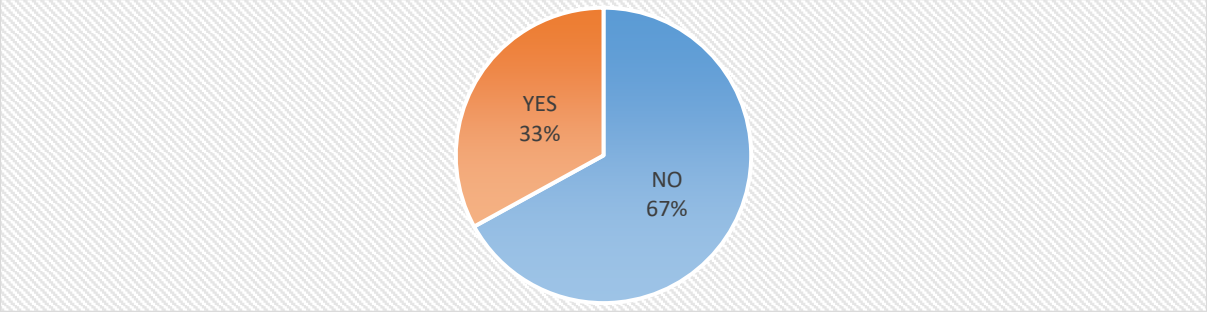

Figure4: patients distribution following menopausal statute

3- Clinical and therapeutic profiles

a- Distribution following per operative complications

Bleeding of hemorrhage was the main observed complication noted in per operation with a rate of 19.90%

Table2: patients distribution following complications

Perioperative Complications	Number (n)	Frequency (%)
Bleeding	**76**	**19.90%**
Bladder/urethral break-in	19	5.00%
Cardiac arrest	5	1.30%
Anemia	4	1.00%
Unstable Patients	3	0.80%
Digestive incident	2	0.50%
Coagulopathy	1	0.30%
Total	382	

b- Distribution following post-operative complications

Anemia, pelvic and abdominal pains and incisional site pain were the most frequent post-operative complications recorded as shown below.

Table3: patients distribution following post-operative complications

Post-operative complications	Number (n)	Frequency (%)
Immediate Complications		

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Reanimation	12	3.10%
Early Complications		
Anemia	**57**	**14.90%**
Pelvic/Abdominal Pain	46	12.00%
Incisional Site Pain	27	7.10%
Fever	25	6.50%
Asthenia	15	3.90%
Pollakiuria/diuria	8	2.10%
Parietal Suppuration	7	1.80%
Vaginal Pain	7	1.80%
Vomiting	7	1.80%
Headaches	6	1.60%
Pruritus	6	1.60%
Constipation	4	1.00%
Late Complications		
Pain	12	3.10%
Re-intervention	11	2.90%
Hot Flush	7	1.80%
Eventration	5	1.30%
Others	36	9.40%
Total	382	100%

DISCUSSION

1- Frequency

The rate of hysterectomy in this study is 4.49% which is close to that reported by Baldé and al. in 2014 in Guinea Conakry where he obtained a frequency of 4.4% [6]; yet, Guirou in Mali in a study carried out in 2013 [26] and Kouma equally in Mali in 2000 [9] obtained respectively 9. 6% and 11.7% of hysterectomy each, which is greater to the obtained frequency in this study. This difference may be as a result of the study periods and the sample size of the population of study because Guirou studied the

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frequency of hysterectomy on a period of one year whereas Kouma carried out a study over a period of 10 years. Besides, in Cameroon, studies carried out by Dongmo and coll. in 2003 and Tebeu and coll. in 2013 obtained frequencies of 0.4% and 1.25% respectively. Here, the difference may be as a result of the fact that, in their studies where included only obstetrical hysterectomies.

2- Sociodemographic profile

Age: The most represented age group of this study was that of [41-50] years with a rate of 40.60%. This rate may be explained by the fact that, this age group belongs to the a pre-menopause group and as such, they are subject to variable hormonal changes until complete menopause, and this, favors the outbreak of certain hormone-dependent pathologies. It may also be as a result of the outbreak of myoma which is one of the principal surgical indications in women above the age of 30 years in certain studies, and regressive observations of the myoma after menopause because of its hormonal dependence as there is decrease estrogen production at menopause [27].

The average age of the study sample was 46.39 years with extremes at18 years and 83 years. This result approaches that of Guirou in Mali [26] who obtained an average age of 46.5 years with extremes at 18 years and 75 years. On the other hand, kouma in Mali obtained a mean age of 41.8 years with extremes at 16 years and 75 years. This may possibly explain early pregnancies as a consequence of early marriages and the important sample size and length of study carried out by Kouma (the age group of [31-40] years was the most represented in this study).

Gravidity: this study reveals that, multi-gravidity represented 36.90% of cases. This rate is less than that reported by Guirou in Mali in 2013 [26] which is 52.6% of multi-gravidity and this equally less than that reported by Moussa in 2015 in Mali [29] which is 84.1%. This difference may be as a result of the fact that the hospitals of study concerned by Guirou and Moussa were second degree hospitals as such many references from other hospitals.

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Parity: study shows that, multipara are the most represented with 35.70%. This rate is less than that of Mariam Siddibé in Mali in 2009 [1] where she obtained 44.20% multipara representation as well as Zeriouh in Algeria in 2008 who obtained 48% multipara [28]. This representative difference could be as a result of the development of the sector of family planning and reproductive health systems in Cameroon these years.

3- Clinical profile

Hormonal activity: here, 67% of the patients were non menopaused. This could be due to the fact that, about 70.70% of the patients were aged below 50 years which is the starting age to most menopause. This rate approaches that of Zehar and al. in 2015 in Algeria which was of the order of 65% of non-menopause and that of Guirou in 2013 which was 71.90%.

Perioperative complication: in this study, bleeding was the main perioperative complication with 19.90% cases. Yet, Baldé and coll. and Buambo and coll. in the DRC in 2009 [6] obtained respectively 12.31% and 15.80% bleeding each. Besides, Keita and coll. in 2018 in a study period of 12 years obtained a rate of 6.11% again much less than that in this study as a result of the difference in the population size of study and the length of study.

Post-operative complications:

This study reveals that anemia was the principal post-operative complication with 14.90% of the cases. This is as a result of a direct consequence of bleeding encountered in 19.90% in this study. Nevertheless, anemia as a post-operative complication obtained by Keita in Mali (7.50%) and Buambo in the DRC (9.80%) is less than obtained percentage in this study.

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CONCLUSION

This study permitted us to confirm that, hysterectomy remains a frequent (4.49%) and great surgical intervention that came after caesarians (82.23%) sections in gynecology. This study equally reveals that, immediate complications of hysterectomy remains bleeding which consequently leads to a great number of anemia in post-operation.

Hysterectomies for mild injuries were the most frequent with 60% of the cases and pre-cancerous cervix and endometrial lesions accounted for 33% of the whole hysterectomies. The amelioration of our plateau-technique will greatly improve early diagnosis and better management so as to reduce the rate of hysterectomies in our hospitals

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