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Original Research Article

Prevalence of Hysterectomy in the Obstetrics Gynecology Department of the Sominé Dolo Hospital in Mopti Mali in 2017

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Abstract

Introduction: Hysterectomy is a surgical procedure commonly performed in obstetrics gynecology at the Sominé Dolo hospital in Mopti, but no study had been conducted. The aim of this study was to determine the prevalence of hysterectomy and to review gynecological and peripartum hysterectomies. ***Methods:*** This was a descriptive cross-sectional study conducted over a period of 12 months from January 1, 2017 to December 31, 2017 in the obstetrics gynecology department of the Sominé Dolo hospital in Mopti Mali. Eligible patients were represented by all those who had undergone a peripartum or gynecological hysterectomy during the study period in our service. Our supports consisted of patient files, patient interviews, the operating report register, the delivery register and the hospitalization register. Data were entered and analyzed using Epi info3.5.3 software and word processing was performed using Word 2007 software. ***Results:*** During the study period, all the surgical interventions represented 522 cases, i.e. an overall prevalence of 9.2% (57/522) among which hysterectomies during the gynecological period represented 70% (38/57) against 30% (19/57) peripartum hysterectomies. The average age of the patients was 46.5 years with the extremes of 18 and 75 years. The types of hysterectomies were represented in the vast majority by total interadnexal hysterectomy 77.2% (44/57) followed by subtotal hysterectomy 15.8% (9/57) and hysterectomy plus bilateral adnexectomy 7% (4 /57). ***Conclusion:*** Hysterectomy is one of the most practiced surgical activities at the Sominé Dolo hospital in Mopti. It constitutes an alternative solution for the practitioner to save the life of the patient, particularly in the event of emergency hysterectomies which represented a significant proportion in our study.

Keywords: Prevalence, hysterectomy, gynecological, perpartum.

INTRODUCTION

There would be few national data on the prevalence of hysterectomy in developing countries, however there is a very wide variation in the prevalence of hysterectomy in developed countries [5, 7]. Hysterectomy is a surgical practice that consists of total or partial removal of the uterus with or without preservation of the annexes. This intervention is common practice in the treatment of benign or malignant lesions of the uterus and its annexes but also in that of uterine rupture which nowadays has become exceptional only occurs on scarred uterus in developed countries. It remains common in developing countries and in Mali [5, 7, 10]. The choice of hysterectomy is a heavy decision to take both for the surgeon and for the patient, especially when it is made in fairly young women who have not had any maternity, or do not have children or have seen the suppression of menses. Which affects the psychotic state of the patient. Hysterectomy represents the increasingly frequent surgical activity after caesarean section in gyneco-obstetric surgery [9, 10]. However, hysterectomy is an ultimate intervention to guarantee maternal survival. It is especially necessary in an emergency (obstetric or gynecological),

if the hemodynamic state is difficult to control, if the uterus cannot be preserved in the event of: placenta accreta, uterine rupture, uterine perforation, uterine atony, etc.… and apart from any emergency: genital prolapse, refractory metrorrhagia, cancer of the cervix and operable endometrium, etc.…. Hysterectomy is a surgical procedure commonly performed at the Sominé Dolo hospital in Mopti but no study had been carried out, hence the purpose of this work was to determine the prevalence of hysterectomy and to take stock of the gynecological and perpartum hysterectomies at the Sominé Dolo hospital in Mopti Mali.

METHODS

The setting of our study was the obstetrics gynecology department of the Sominé Dolo hospital in Mopti. The Region of Mopti located in the center of the country with an area of 79017km² is the 5th administrative region of the country. The majority of the territory of this region is located in the Sahelian zone. It is divided into two large agro-ecological zones. There is an exposed area located largely to the east. This area is divided into two parts, a mountainous part and the other consisting of the plain. Finally, a flooded area or inner delta of the Niger is a vast marshy area during the season of the annual flood of the Niger River and its tributary the Bani. The population of Mopti was estimated at 1,865,297 inhabitants in 2017. The Sominé Dolo hospital in Mopti was the one and only 2nd reference health structure for the entire region. The Gynecology and Obstetrics department had a capacity of 13 beds with two air-conditioned hospital rooms. The department had its own operating theater for obstetrical emergencies annexed to the delivery room but at the same time shared the large operating theater with the other surgical specialties. Our study was descriptive cross-sectional over a period of 12 months between January 1, 2017 and December 2017. Our study population included all patients admitted to the gynecology and obstetrics department of the Sominé Dolo regional hospital in Mopti for a hysterectomy during our study period. The inclusion criteria were related to all patients who underwent gynecological and peripartum hysterectomy in the gynecology and obstetrics department of the Sominé Dolo regional hospital in Mopti. The non-inclusion criteria concerned hysterectomies performed outside the gynecology and obstetrics department of the Sominé Dolo regional hospital in Mopti, evacuated from the region's reference health centers or coming on their own. Our materials included patient files, the operating report register, the delivery register and the hospitalization register. Data collection was done using a validated questionnaire held by an interviewer. The size of our sample was calculated according to the SCHWARTZ formula: $n= (z\alpha)^2 pq /i^2$, where n= sample size, $Z\alpha=1.96$ = reduced deviation, q=1–p, p= prevalence of hysterectomy nationally= 6.20 And i=Precision = 5%. The variables were grouped into sociodemographic variables, clinical variables and per and postoperative variables. For participation in our informed consent of all patients was obtained. Data processing was carried out using Word 2017 software. Data entry and analysis was carried out using Epi info3.5.3 software.

RESULTS

The total size of our sample was calculated at 57 patients.

Table-1: Distribution of patients according to socio-demographic characteristics

Age	Number	Percentage (%)
18-30	14	24,6
31-40	22	38,6
41-50	11	19,3
51-60	7	12,3
61-70	2	3,5
71-80	1	1,8
Marital status		
monogamous bride	34	59,6
polygamous bride	14	24,6
Single	5	8,8
widow	4	7
Profession		
household	53	93
trader	2	3,5
Official	2	3,5
Origin		
Urban	17	29,8
Rural	40	70,2
Educational level		
Educated	3	5,3
No schooling	54	94,7
Mode of admission		
Come by itself	31	54,4
Referee	7	12,3
Evacuated	19	33,3
Total	57	100%

Table-2: Distribution of patients according to referral/evacuation

Reference and/or evacuated	Number	Percentage(%)
CSCom*	13	22,8
CS Ref**	13	22,8
Any	31	54,4
CSCom*	57	100

*CSCom Community Health Center

**Reference Health Center

Table -3: Distribution of patients according to parity

Parity	Number	Percentage (%)
Nulliparous	10	17,5
Primiparous	2	3,5
Pauciparous	15	26,3
Multipara	9	15,8
Grand multiparous	21	36,8
Total	57	100

Table -4: Breakdown of patients according to surgical indication

Indication for surgery	Number	Percentage (%)
Uterine rupture	18	31,6
Uterine prolapse	12	21,1
Uterine fibroids	22	38,6
Intractable menometrorrhagia	1	1,8
hemorrhage of deliverance	1	1,8
Pelvic tumor	1	1,8
Polyp given birth through the cervix	1	1,8
neo of the collar	1	1,8
Total	**57**	**100**

Table-5: Distribution of patients according to hysterectomy period

Hysterectomy	Number	Percentage (%)
Gynecological	42	73,7
Peripartum	15	26,3
Total	57	100

Table-6: Breakdown of patients by type of operation

Type of hysterectomy	Number	Percentage (%)
interadnexal total hysterectomy	44	77,2
hysterectomy + bilateral adnexectomy	4	7
subtotal hysterectomy	9	15,8
Total	57	100

Table-7: Distribution of patients according to approach

Look first	Number	Percentage (%)
high	48	84,2
low	9	15,8
Total	57	100

DISCUSSION

The constraints and limits of our study had been the lack of information on certain evacuations, the absence of an anatomopathologist in the region for examination of the surgical specimens, the insufficiency in the detection of precancerous lesions in the majority of our patients because of rupture of visual test reagents.

During our study period, we performed 57 hysterectomies out of 522 surgeries, i.e. a prevalence of 11% of all surgeries in the department. Hysterectomy would be almost one of the practitioner's alternative solutions to save the patient's life, particularly emergency hysterectomies, which represented a significant proportion in our study [table 5]. Through the African studies, our result of the prevalence of hysterectomy was identical to that obtained by Kouma A. which was 11.7% [7]. On the other hand, other African authors had found proportions clearly below: 0.07% in Gabon, 0.11% in Nigeria; 0.45% for Diouf et al. in Senegal, 0.53% for Muteganga *et al*. In Burundi [1, 7, 9, 14]. In the end, the proportion of 11% in our study and that of most African authors would be well below the prevalence of hysterectomies performed in developed countries which would have a technical platform and substantial qualified personnel [1, 7, 9 ,14,]. The age group of 31 to 40 years was the most represented with 38.6%. (22/57) which was much higher than the Kouma A result. 26.3% for the same tranche of course [7,11]. The age group 31 to 40 years would correspond to the period of fertility when the desire for pregnancy was often expressed. In our study, the grand multiparous represented 36.8% against 37.8% for Kouma A. On the other hand, Niarga M. had found a high proportion of multiparous, i.e. 44.20%.

Nulliparous represented 15.8% of our study. This rate was twice twice that of Kouma A.: 8.2% [7, 11]. These deviations would a priori be linked to the health reference level. Inter-adnexal hysterectomies were mainly performed in our study 77.2% (44/57). This proportion was much higher than that found by Kouma A. 33.3%. On the other hand, Niarga M. in his study had mainly performed subtotal inter-adnexal hysterectomies (52.8%) [7,11]. The clinical condition of the patient and the availability of blood products could partly explain this attitude because even if this technique would be rapid with less risk of uretero-vesical lesions, the cervical stump would require regular monitoring by screening for precancerous lesions of the uterine cervix. In our study, the 42 cases of gynecological hysterectomy, ie 73.7%, had given a favorable follow-up apart from one case of suppuration. On the other hand, among the 15 cases of peripartum hysterectomy (26.3%) we had deplored two deaths. The causes of these two deaths were related to uterine rupture. This implies the best prognosis of gynecological hysterectomies in favor of peripartum hysterectomies which would be performed in an emergency. Our percentage of deaths was 3.5% (2/57), well below the proportion of deaths post hysterectomies of certain African authors: Niarga M. (20.75%), Muteganga (11%) and Osefo (29 .8%) [11, 14,15]. These differences could be explained by the patient recruitment method and the size of the different samples. In the literature, the post-hysterectomy death rate would vary between 0.8% and 16% [16, 17]. This would be partly related to the high level of technology in the West compared to that low in developing countries.

CONCLUSION

The Sominé Dolo hospital in Mopti, the only reference structure of the 2nd level and 5th administrative region located in the center of our country, had a department of obstetrics gynecology where hysterectomies represented 11% of all surgical procedures in 2017.

Conflicts of interest

The authors declare no conflicts of interest.

Authors' contribution

The study was designed by Pierre Coulibaly and Mamadou Traoré. The questionnaire was developed and validated by these two authors. Word processing as well as data entry and analysis were carried out by Seydou Mariko and Abdramane Guirou. All authors had participated in the work substantially and were prepared to take public responsibility for the work. All authors have viewed and approved the manuscript as submitted.

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