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Vaginal Bleeding in the Nonpregnant Patient Received in Emergency at Yalgado Ouedraogo University Hospital of Ouagadougou, Burkina Faso

Yobi Alexis Sawadogo[1,2*], Boubakar Toure[1,2], Issa Ouedraogo[1,3], Sibraogo Kiemtore[1,2], Dantola Paul Kain[1,2], Adama Ouattara[1,2], Hyacinthe Zamane[1,2], Ali Ouedraogo[1], Blandine Thieba[1]

[1]Unity of Training and Research in Health Sciences (UFR/SDS), University Ouaga I Professor Joseph KI-ZERBO, Ouagadougou, Burkina Faso
[2]Yalgado OUEDRAOGO Teaching Hospital of Ouagadougou, Ouagadougou, Burkina Faso
[3]Teaching Hospital of Ouahigouya, Ouahigouya, Burkina Faso
Email: *sawalexis@yahoo.fr

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Abstract

Objective: To describe the epidemiological, clinical and therapeutic aspects of cases of vaginal bleeding in the nonpregnant patient received in emergency at Yalgado OUEDRAOGO University Hospital. **Materials and Methods:** It was a retrospective and descriptive study that involved the clinical records of 326 patients collected from January 01, 2009 to December 31, 2013. **Results:** The average age of women was 47 years old with extremes at 12 and 82 years old. Women of childbearing age accounted for 61.6% and postmenopausal women 18.7%. 70.7% of women were pauciparous or nulliparous. Menorrhagia and pelvic pain were the main signs associated. This symptomatology required hospitalization in 85.2% of cases. The main aetiologies were uterine myomas 49.69%, cervical cancer 23% and functional metrorrhagia 11.04%. Progestin was the most used drug in 67.1% of cases. Total abdominal hysterectomy and abdominal myomectomy were the most commonly used surgical methods with 22.3%, 44.4% of cases. Eleven death cases were observed. **Conclusion:** Gynecological metrorrhagia is more common in women of childbearing age than in menopausal women. The main causes are fibroma, cervical cancer and functional metrorrhagia.

Keywords

Metrorrhagia, Gynecology, Aetiology, Treatment, Ouagadougou

1. Introduction

Gynaecological metrorrhagia is any haemorrhage of genital origin, lesional or functional occurring outside menstruation and any pregnancy. They constitute a problem whose management is complex [1]. It is the frequent and distressing pathology that can endanger the vital prognosis of the woman. In fact, this abnormal vaginal bleeding, which disturbs the woman's daily life as much as possible, can also announce a serious underlying pathology such as cancer [1] [2] [3]. These are situations that have received relatively little attention in the literature [1]. The clinical condition of women most often results in frequent use of emergency care. According to Malcom G, knowledge about pathogenesis and guidelines for the management of this clinical problem was lacking, with relatively little basic or clinical research in the field [4]. Metrorrhagia is a real public health problem. It is observed at any age of woman's life. Their etiologies, prevalence and severity differ according to age of onset. Sometimes doctors fail to identify the causes of this condition throughout history and physical examination [1]. For Kazadi-Buanga in Senegal, genital haemorrhages out menstruation are a specific problem and common in gynecological consultation whose etiological factors deserve to be known to better adapt the treatment [5]. In Burkina Faso, studies on this condition are rare and the etiological approach is often difficult because of the inaccessibility and the unavailability of some necessary complementary examinations. This study is conducted with the aim of describing the epidemiological, clinical, therapeutic and evolutionary aspects in order to contribute to a better management of this pathology.

2. Patients and Methods

It was a cross-sectional study with retrospective data collection. The study covered the period from January 1, 2009 to December 31, 2013 (5 years) and took place in the Obstetrics and Gynecology Department of the Yalgado OUEDRAOGO University Hospital.

We included in this study all the women who had been received in emergency in the department for metrorrhagia without diagnosed pregnancy.

The sample size was estimated with the Schwartz formula $n = (1.96)^2 PQ/i^2$. The prevalence $P = 0.93$ was obtained by consulting the activity report of the University Hospital Yalgado OUEDRAOGO of the year 2013.

By accepting an alpha risk of 5% and a precision (i) of 95% the minimum sample size was 14 women. We included 326 women.

The data were collected using an individual survey form for each patient. Data sources included emergency consultation records, patient medical records and operating record books.

Ethically, the start of this study, we had an authorization to collect data from the Hospital Director and the Ethics Committee. During the collection, the anonymity and confidentiality of the information collected were respected.

3. Results

We recorded 326 women who visited the emergency department between January 1, 2009 and December 31, 2013 for nonpregnant metrorrhagia. During this period, 38,165 women were admitted to the same service. Nonpregnant metrorrhagia represents 0.9% of admissions. The average age of the patients was 46 years with extremes of 12 and 81 years. The socio-demographic characteristics of women are listed in Table 1.

Clinically, metrorrhagia alone was the reason for consultation in 62.6%. It was associated with menorrhagia in 17.8%, postcoital metrorrhagia in 8.9%, leucorrhea in 3.1% and pelvic pain in 7.7% of cases.

Vaginal speculum examination found a healthy cervix in 58.3% of patients, an ulcerated cervix in 24.5% of cases, a budding cervix in 11.3% of patients, an inflammatory cervix in 4.6% and others aspects in 1.2%.

The vaginal examination noted that 54.6% (178/326) of the patients had a normal size uterus; 31.9% (104/326) had an enlarged uterus. In 13.5% of women, size assessment could not be done.

Complementary examinations prescribed at admission were: pelvic ultrasound 72.4%, cervical biopsy 16.9%, hysterosalpingography 2.1%, endometrial biopsy 0.6%, vaginal sampling 1.2%, Pap smear 3.1% and other tests 3.7%. The hemogram requested from 285 patients had anemia (hemoglobin level less than 11 g/dl) in 82.80% of patients. The different etiologies found after assessment are recorded in Table 2.

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Management was medical in 192 cases (58.7%) and surgical in 134 cases (41.2%). Initial management consisted of verification of the patient's stability. Emergency care was provided prior to specific care. Transfusion was required in 17 patients. The drugs used for medical treatment are listed in Table 3.

The different surgical procedures were myomectomy 62.7%, total hysterectomy 24.6%, cystectomy 6%, polyp ablation 3.7% and curettage 2.1%.

Of all patients received for metrorrhagia, 278 were hospitalized (85.3%). The average hospital stay was 27 days with extremes of 3 and 51 days.

The clinical evolution of the patients was favorable in 93.6% authorizing their exit. Only 2.5% of patients were transferred to another department. Two patients were discharged against medical advice (0.6%). The lethality was 3.4%. The causes of death were cervical cancer (6 cases), post-myomectomy hemorrhagic shock (3 cases), 1 case of endometrial cancer and 1 case of ovarian cancer.

Table 1. Socio-demographic characteristics of patients.

Characteristics of patients	Number	Percentage
Age		
Under 20 years	57	17.5
20 - 44 years	200	61.3
45 - 54 years	38	11.7
55 - 64 years	24	7.4
65 years and over	7	2.1
Socio-professional status		
Housewives	209	64.1
Informal sector workers	37	11.3
Employees	24	7.4
Students	21	6.4
Shopkeepers	12	3.7
Restated	9	2.8
Unspecified	14	4.3
Marital status		
Married	250	76.7
Celibatarian	56	17.2
Concubine	14	4.3
Divorcee-widow	6	1.8
Number of pregnancies		
Nulliparous	81	24.8
Pauciparous	155	47.5
Multiparous	49	15
Grand multiparous	41	12.6

Table 2. Distribution of cases of metrorrhagia according to etiologies retained.

Etiologies	Number	Percentage
Uterine myomas	162	49.7
Cervical cancer	75	23
Functional metrorrhagia	33	10.1
Postcoital vaginal injury	27	8.3
Endometrial cancer	06	1.8
Cervical polyp	06	1.8
Chronic cervicitis	05	1.5
Ovarian Cyst	05	1.5

Continued

Endometrial atrophy	03	0.9
Endometrial hyperplasia	01	0.3
endometriosis	01	0.3
IUD metrorrhagia	01	0.3
Coagulation disorder	01	0.3
Total	**326**	**100%**

Table 3. Distribution of patients according to the drugs used.

Drugs	Number	Percentage
Progestins	128	66.7
Oestrogen plus progestin	5	2.75
Martial treatment	40	20.2
Analgesic	22	11.5
Anti-inflammatories	51	26.5
Haemostatic	24	12.8
Antibiotics	93	48.8
Others	10	5.2

4. Discussion

The relative frequency of metrorrhagia was 0.9%. The frequency of vaginal bleeding in the nonpregnant patient varies considerably in the literature due to methodological differences in studies. Diarra AA in Mali had found a rate of 4.7% [6]. According to Mary Gayle Sweet *et al.*, abnormal vaginal bleeding occurs in 9% - 14% of women between menarche and menopause [7].

The average age of women was 47 years old with extremes of 12 and 82 years. This is the same observation made in Mali by Diarra A [6]. His patients were between 14 and 87 years old with an average age of 42 years. The age group 19 to 45 years was the most prominent with a frequency of 61.3%. This rate is similar to that of Diarra in Mali (59.60% for the age group of 20 - 39 years) [6].

Vaginal bleeding in the nonpregnant patient can occur at any age. They are much more frequent in women in genital activity. In fact, pathologies such as fibroma and functional bleeding are common at this period of the woman's life [2].

Pauciparous were more represented with 47.5% followed by nulliparous 24.8%. This is the same observation done by Diarra A [6]. This is understandable if we know that the main cause of metrorrhagia (the fibroid) is much more common in women who have had few children. Moreover, in our study, the fibroid is the first cause of metrorrhagia.

Identifying the cause of metrorrhagia is the most important element for management.

It is known that clinical examination alone does not identify the cause of vaginal bleeding [1] [4]. Paraclinical examinations are therefore more than necessary for this purpose. This assessment must be requested according to the clinical orientation [8]. Nowadays, the consensus is made on the first-line examination in case of metrorrhagia: it is the vaginal ultrasound. Ultrasound allows a better appreciation of the uterus compared to the clinical examination [1]. This aspect has been confirmed by the results of this study. Indeed, the clinical examination had noted a uterine abnormality in 104 patients and the ultrasound revealed 162 abnormalities.

The majority of ultrasound scans that were performed in this study were abdominal. Currently all publications report the superiority of the vaginal ultrasound compared to the conventional abdominal route for the diagnosis of pelvic pathologies.

The causes of metrorrhagia during periods of genital activity are known, although sometimes the mechanism of bleeding remains enigmatic [4]. The causes are either organic or functional. The first cause of metrorrhagia in our study was uterine fibroid (49.7%). This is the same observation done by several authors. For Telner E. D. *et al.*, fibroids or polyps are the main causes of metrorrhagia [8]. For them 30% to 40% of women have fibroids. Diarra A in Mali noted that uterine fibroids ranked second in his study [6].

Cervical cancer, which is the second cause of metrorrhagia in our study (23%), ranks 5th in the Diarra study in Mali [6]. This difference could be explained by the difference in level of hospitals (level 2 in Mali against level 3 in Burkina Faso).

The diagnosis of functional metrorrhagia was retained in 10% of women. It was the first cause in Mali according to Diarra A. For Malcolm, peripubertal bleeding accounted for 10.7% [4].

For specific management, progestin-only hormone therapy was the most prescribed medical treatment (67.1%). This drug was used in the same proportions in Mali by Diarra. The literature is unanimous on the use of progestins for the medical treatment of vaginal bleeding in the nonpregnant patient [2] [4] [7]. In heavy bleeding, injectable estrogens are indicated as first-line. In our context this drug is not available.

Of all the patients admitted for metrorrhagia, none had presented a state of shock. Nevertheless, we noted cases of severe anemia that required blood transfusion in 8.9% of cases. The delay in consultation and the ineffectiveness of some medical treatments often result in severe anemia requiring transfusion.

Abdominal myomectomy was the most commonly used surgical method with 44.43%. Total abdominal hysterectomy was second with 22.38%. The young age of the patients and the desire to have a child explain the predominance of the conservative treatment in our series. In addition, nearly 3/4 (72.3%) of the patients had given birth at most 3 times. In some countries, hysterectomy, which is the second treatment in our series, is the last resort for young women. Indeed,

other treatments such as intracavitary tamponade, arterial embolization, endometrial resection that are recommended before hysterectomy, are not available at Yalgado Ouedraogo University Hospital.

In terms of prognosis, we recorded eleven deaths from all causes. The case fatality rate was 3.4%. Cancer was the leading cause of death with 72.7%. The other 3 deaths were observed in postoperative myomectomy by hemorrhagic shock in a context of blood scarcity.

Among the survivors, 305 patients had a favorable evolution, 08 patients were transferred for additional care in other services and 02 patients came out against medical advice.

5. Conclusions

Nonpregnant metrorrhagia is a major concern in the obstetrics and gynecology department. They are especially common among pauciparous women of childbearing age. Fibroids and cervical cancer were the main causes of this bleeding. Cancer cases are diagnosed at late, life-threatening stages. It is an affection that interests all ages and all professional categories.

A prospective study taking into account patients seen in outpatient clinics would make it possible to specify the extent and causes.

Conflicts of Interest

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

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