

Endometrial Hyperplasia: Epidemiological Profile of Patients and Anatomical and Clinical Aspects of Lesions at Conakry University Hospital

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Abstract

Summary: Estimate the incidence of endometrial hyperplasia according to socio-demographic parameters and the type of lesions histological. **Methodology:** This was a retrospective, and 15-year descriptive study from January 1, 2000 to December 31, 2014 conducted at the Department of Anatomy and Pathological Cytology of the National Hospital Donka in collaboration with the obstetric gynecology departments of the Conakry University Hospital. **Results:** We collected 296 cases of malignant and benign endometrial hyperplasia in 15 years, accounting for 37% of all endometrial biopsy curettages examined. The age group 47 to 56 years was the most affected (81 cases) or 27, 36%. The mean age was 53.6 years with extremes of 27 and 83 years. Metrorrhagia was the main reason for consultation (206 cases), *i.e.* 69.59%. The suspicion of endometrial hyperplasia by physicians was the most frequently diagnosed circumstance (149 cases) or 50.33%. Biopsy curettage was the most frequently used method (176 cases), is 59.45%. Histological endometrial lesions of atypical complex adenomatous hyperplasia (79 cases) represented 26.69%. Benign behavior was most frequently observed in (235 cases) or 79.39%. **Conclusion:** Endometrial hyperplasia is an endometrial lesion whose atypical histological types represent the borderline lesions between benignity and malignancy.

Keywords

Endometrial Hyperplasia, Epidemiology, Anatomoclinical, CHU Conakry

1. Introduction

Endometrial hyperplasia is organic lesion characterized by an increase in the cellular mass of the endometrial glandular structures, which may be accompanied by architectural disorganization and cytonuclear atypia [1].

They are increasingly common, but their frequency is difficult to specify, as many of its types do not have histological evidence [2].

Atypical histological types are precancerous lesions, as they inexorably evolve towards cancerization [3]. They then pose a public health problem, due to their frequency and evolution. Their discovery requires further investigation to eliminate adenocarcinoma from the endometrium [4].

Nowadays, diagnostic and surgical hysteroscopy is the most popular technique for reliable diagnosis and appropriate management. Histology is the key examination; it is what allows the diagnosis of certainty of endometrial hyperplasia [5] [6].

According to WHO, their frequency was a function of the histological type: simple hyperplasia 55%, complex hyperplasia 17%, atypical simple hyperplasia 8%, atypical complex hyperplasia 20% [7]. The problem of hyperplasia is their diagnosis. BERGERON *et al.* [8] reported in their series that the frequency of anatomopathological findings are as follows: 66.7% simple hyperplasia without atypia; 13% complex hyperplasia without atypia; 20% cellular atypia.

In Guinea, despite the existence of a University Hospital Centre, anatomopathological examinations are rarely carried out, even for obvious indications such as the presence of organic pathologies or unexplained non-functional metrorrhages. Objectives: Estimate the incidence of endometrial hyperplasia according to socio-demographic parameters and the type of lesions histological.

2. Methodology

This was a retrospective study, of a descriptive type covering a period of 15 years, from 1 January 2000 to 31 December 2014, carried out in the Anatomy and Pathological Cytology Department of the Donka National Hospital in collaboration with the Gynaecology and Obstetrics Department of the University Hospital of Conakry.

Included in this study were all cases of endometrial hyperplasia recorded in the service during the study period and excluded poorly maintained records and incomplete results.

The data were collected with the anatomopathological examination request forms, the sample registration registers, all the anatomopathological examination report forms containing endometrial sample results for the study period.

We noted the frequency, epidemiological profile of the patients, and histological type.

The collected data were entered with Excel software and analyzed with SPSS software version 16.0.

3. Results

Sociodemographic characteristics

In this study 296 cases of benign and malignant endometrial hyperplasia were collected, representing 37% of all samples examined in the department. Benign endometrial hyperplasia was 80.40%.

Socio-professional layers: Housewives were the most affected with 186 cases, or 62.83%. They were followed by the liberal socio-professional strata with 66 cases, or 22.29%.

Mini: 27 years old; Average: 53.6 years old; Max: 83 years old (**Table 1**).

Managed: Multi-gesture was the most affected with 14 cases, or 28.57%. They were followed by the paucigest with 12 cases, or 24.48% (**Table 2** and **Table 3**).

Table 1. Distribution of endometrial hyperplasia by age.

Age	Number	Percentage
27 - 36 years old	29	9.80
37 - 46 years old	47	15.88
47 - 56 years old	81	27.36
57 - 66 years old	67	22.64
67 - 76 years old	60	20.27
77 years and over	12	4.05
total	296	100

Table 2. Endometrial hyperplasia as a function of parity.

Parity	Number of people	Percentage
Nullipare (0 parity)	37	12.5
Primipare (1 parity)	49	16.55
Paucipare (2 - 3 parity)	75	25.34
Multipare (4 - 5 parity)	64	21.62
Large multipare (over 5 parity)	71	23.99
total	296	100

Table 3. Endometrial hyperplasia according to the sampling technique.

Sampling technique	Number of people	Percentage
Curettage biopsy	176	59.46
Biopsy under hysteroscopy	6	2.03
Subtotal hysterectomy	24	8.10
Total hysterectomy	75	25.34
Myomectomy	15	5.07
Total	296	100

Anatomopathological aspect:

Reasons for consultation: Metrorrhagia was the main reason for consultation with 206 cases, or 69.59%, followed by abdominal pain, leucorrhoea and dysmenorrhoea with 12.16%; 10.47% and 7.09% respectively.

Presumptive diagnosis: Endometrial hyperplasia was the most frequent with 149 cases, or 50.34%, followed by malignant tumours with 61 cases, 20.61%.

Sampling technique: Biopsy curettage was the most widely used technique, at 59.46%.

Consistency: the consistency of the tissue sampled was more frequently firm with 163 samples or 55.06%.

Histological types: Elemental histological lesions: Simple adenomatous hyperplasia was the most common elementary histological lesion encountered with 81 samples, or 27.36%. It was followed by non-typical complex adenomatous hyperplasia complex 79 samples, or 26.68%.

Histological behaviour: Hyperplasia with benign behaviour were the most frequently observed in 235 cases, or 79.39%.

Associated heterogeneous lesions: In 73.98%, there were no lesions associated with endometrial hyperplasia. In 12.84%, hyperplasia was associated with leiomyomas and in 11.49%, it was associated with adenomyosis.

4. Discussion

Frequency: Endometrial hyperplasia has occupied a prominent place among gynaecological pathologies. Our result was close to that of SAKANDE. B *et al.* in Burkina [9] who report that endometrial hyperplasia accounts for 20% of all endometrial biopsies performed. In Morocco for ZOUBIR [10] the frequency of endometrial hyperplasia is very difficult to specify, because the diagnosis is only made in symptomatic patients, whereas endometrial hyperplasia can be silent in 10% of cases. In the LEFRANC study, which included 200 histological examinations (100 biopsy curettages and 100 hysterectomies), the frequency of endometrial hyperplasia was 15.5% [7].

Sociodemographic characteristics: Risk factors for endometrial hyperplasia are related to a context of relative hyperestrogeny. This favourable hormonal terrain is found in anovulations or dysovulations (micro-polycystic ovary syndrome), obesity and secretory ovarian tumours. Our finding is thus consistent with the study by RIBEO C T *et al.* [11]. In the literature, the mean age of onset of endometrial hyperplasia is between 40 and 50 years depending on the authors [7] [8] [11]. According to the same authors, the average age is 51 years in the case of simple hyperplasia, and 56 years in the case of atypical hyperplasia. Normally, the cessation of ovarian activity in post-menopause explains the evolution towards atrophy of the endometrial mucosa. However, endometrial hyperplasia may persist in rare cases.

The predominance of housewives could be explained by the high number of patients from this socio-professional layer in our country where they represent more than 60% of women [12].

Contrary to our results, studies in the literature reveal a high frequency of endometrial hyperplasia in nulliparous women. The risk is sometimes multiplied by 2 for nulliparity: SAKANDE B. *et al.* report 35.8% of nulliparous cases and according to ZOUBIR [10], the relative risk was 1.4 for nulliparity. Among the risk factors, the following observations and data are found in the literature according to ZOUBIR [10]: endometrial adenomatous hyperplasia share the same risk factors with endometrial adenocarcinoma: obesity, nulliparity, hypertension, diabetes. Obesity is the most frequently cited risk factor, being present in 21% - 83% of hyperplasia. The increased aromatization of androstenedione to estrone, particularly in fatty tissues, contributes to the increase in circulating estrogens in obese people. BRUN J. *et al.* [13] also found in a series of 97 patients followed for endometrial hyperplasia 23% obesity. Diabetes indirectly increases the frequency of hyperplasia through obesity. Pregnancy provides protection against endometrial hyperplasia and cancer by interrupting the continuous stimulation of the endometrium by estrogen.

Anatomoclinical aspects: The predominance of metrorrhagia is not surprising, as it is classically the dominant syndrome of benign and malignant endometrial lesions and this symptom has been reported as the main cause by various authors including [13] [14]. But endometrial hyperplasia can also be discovered by chance after a pelvic ultrasound or hysteroscopy for infertility assessment. Thus SAKANDE *et al.* [9] reported that patients consulted mainly for fertility disorders in 65.5% and for bleeding in 22.5%. With regard to the diagnosis of presumption, there are no pathognomonic signs of endometrial hyperplasia. DARGENT [15] reported that the clinical examination is most often normal in case of endometrial hyperplasia, but it can show an enlarged uterus in case of association with uterine fibroids. According to the same author, 5% of the polyps visible at the cervix are endometrial.

Sampling technique: According to CATALA L. [16], endometrial sampling remains the rule in the presence of metrorrhagia. This sample can be obtained in different ways, by biopsy during a clinical examination, the most common technique in France being performed using a Cornier pipel, by endometrial curettage, by a directed sample during hysteroscopy.

A meta-analysis of DIJKHUIZEN *et al.* [17] involving 39 studies, including 7914 patients, compared histological results after biopsy, curettage and hysteroscopy. Sampling by the Cornier pipelay provides a sensitivity equivalent to the other two methods, in terms of cancer diagnosis and hyperplasia with atypia. The detection rate of endometrial cancer by pipel in postmenopausal and pre-menopausal women is respectively.

5. Conclusions

Endometrial hyperplasia is complex and heterogeneous organic lesion that poses a public health problem. Their general frequency is difficult to specify, as many of them are autopsy findings, not reported on the medical report and therefore not included in the statistics.

Their problem is their late discovery because the symptoms and signs are not pathognomonic. The anatomopathological examination that constitutes the time of the objective diagnosis is rarely requested.

Endometrial biopsies under hysteroscopy, which allow a reliable result, while limiting the risk of complications, are not within everyone's reach because of the cost or lack of equipment.

Conflicts of Interest

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

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