

Endometrial Cancer: Epidemiological, Histological and Therapeutic Aspects in the Gynecology-Obstetrics Department of the Donka National Hospital, CHU of Conakry

Abdourahamane Diallo^{1,2}, Ousmane Balde^{2,3}, Aboubacar M'mah Sylla^{1,2},
Ibrahima Conte^{1,2}, Aboubacar Fodé Momo Soumah^{1,2}, Namory Keita^{2,3}

¹Service de Gynécologie-Obstétrique de l'Hôpital National Ignace Deen du CHU, Conakry, Guinea

²Faculté des Sciences et Techniques de la Santé de l'Université Gamal Abdel Nasser de Conakry, Conakry, Guinea

³Service de Gynécologie-Obstétrique de l'Hôpital National Donka du CHU, Conakry, Guinea

Email: adiallo69gn@yahoo.fr, adiallo69gn@gmail.com

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Abstract

Objective: To study the epidemiological, histological and therapeutic characteristics of endometrial cancer in the Gynecology-Obstetrics department of the Donka National Hospital, CHU of Conakry. **Methods:** We conducted a retrospective descriptive study of 86 patients with endometrial cancer treated in the Gynecology-Obstetrics department of the Donka National Hospital from January 1, 2011, to December 31, 2021, based on their medical records. We analysed the epidemiological, histological and therapeutic aspects of the disease. **Results:** Endometrial cancer accounted for 3.1% of the 2793 gynecological pathology cases registered in the department during the study period, ranking third. The mean age of the patients was 63 ± 5 years. Most of them were uneducated (59.3%), postmenopausal (91.9%), nulliparous (30.2%), obese (65.1%) and hypertensive (77.1%). More than half of the patients (53.4%) were diagnosed at stage I. Endometrioid adenocarcinoma was the predominant histological type (68.6%). Surgery was performed in 96.6% of the patients, and chemotherapy in 14.0%. After a mean follow-up of 15 months, 84.5% of the patients were alive. **Conclusion:** Endometrial cancer is a common gynecological malignancy in our department. Endometrioid adenocarcinoma is the most frequent histological subtype. Surgery is the main treatment modality.

Keywords

Cancer, Endometrium, Donka

1. Introduction

Endometrial cancer is the second most frequent gynecological cancer after breast cancer [1]. It affects about 4.4% of women globally, with an estimated 382,100 new cases in 2018 [2]. In France, it causes about 1200 deaths per year, with about 6500 new cases annually [3]. It represents about 8% of cancers in women and is the fifth most common cancer after breast, colon-rectum and lung cancers [3]. In Canada, endometrial cancer's incidence and mortality rate were 35.7 and 5.3 per 100,000 women respectively, in 2017 [4]. In Cameroon, it ranked third among gynecological cancers in 2015, with 176 cases and a frequency of 6.88%, mainly in postmenopausal women [5]. In Burkina Faso, it accounted for 0.87% of all cancers and 2.7% of gynaecological and breast cancers in 2011 [6].

This disease's high frequency and mortality and the lack of recent data on its characteristics in our department prompted us to conduct this study. The aim of the study was to describe the epidemiological, histological and therapeutic aspects of endometrial cancer in our department.

2. Methods

2.1. Study Design

This retrospective descriptive study was conducted over an 11-year period, spanning from January 1, 2011, to December 31, 2021. The study aimed to investigate various aspects of endometrial cancer in patients treated in our department.

2.2. Study Population and Inclusion Criteria

The study population consisted of patients who had been treated for endometrial cancer in our department during the specified 11-year timeframe. Inclusion criteria for patient records were based on two key factors: completeness of the medical records and the presence of a histological report confirming the diagnosis of endometrial cancer. Patients with incomplete records or needing a histological report were excluded from the study to ensure data accuracy and reliability.

2.3. Data Collection

All patient records that met the inclusion criteria were collected and reviewed for the study. The data collection process focused on gathering comprehensive information related to the epidemiological, histological, and therapeutic aspects of endometrial cancer. The data were extracted from the patients' medical records, including demographic details, clinical presentations, histological findings, and treatment approaches.

2.4. Data Analysis

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 21 software. For qualitative variables, proportions were

calculated to express the distribution of different categorical variables. For quantitative variables, descriptive statistics, including mean, standard deviation, and extreme values were computed to provide a comprehensive summary of numerical data.

2.5. Ethical Considerations

Prior to initiating the study, we obtained ethical clearance and the necessary authorisation from the head of our department. The study adhered strictly to ethical principles, ensuring patient anonymity and maintaining the confidentiality of all individual data. Patient identifiers were removed during data analysis and reporting to protect their privacy and comply with ethical guidelines.

3. Results

Among the 2793 files of gynecological pathologies identified in the department during the study period, we recorded 86 cases of endometrial cancer, representing a frequency of 3.1% (**Figure 1**).

3.1. Epidemiological Aspect

Frequency:

Figure 2 shows that endometrial cancer ranked 3rd behind cervical cancer and breast cancer.

We note on this curve two declines in 2015 and 2020 and a peak in 2021 (**Figure 3**).

The average age of the patients was 63 ± 5 years with extremes of 40 and 86 years and a higher proportion (54.7%) between 60 and 69 years. These were mainly patients with no schooling (59.3), widows (47.7%), postmenopausal (91.9%), Nulliparous (30.2%), housewives (65.1%), obese (65.1%) and hypertensive (77.1%) (**Table 1**).

More than 5 patients out of 10 (53.4%) were treated at stage I of the disease,

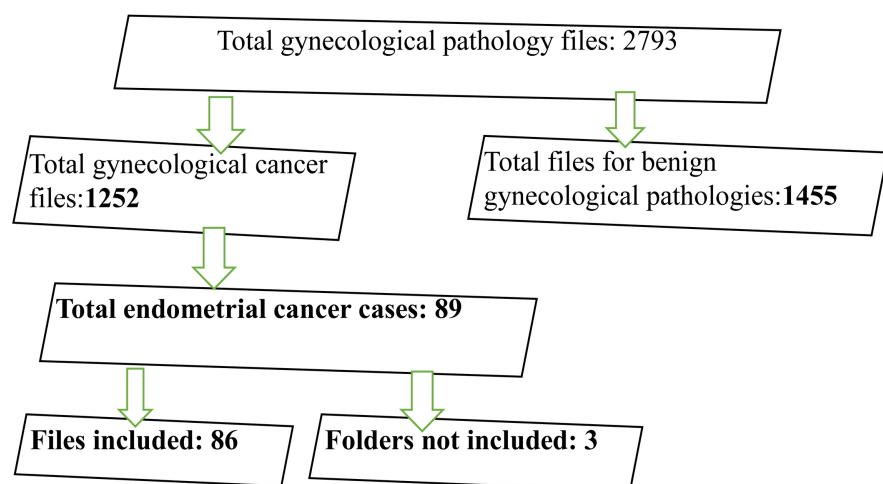


Figure 1. Flowchart.

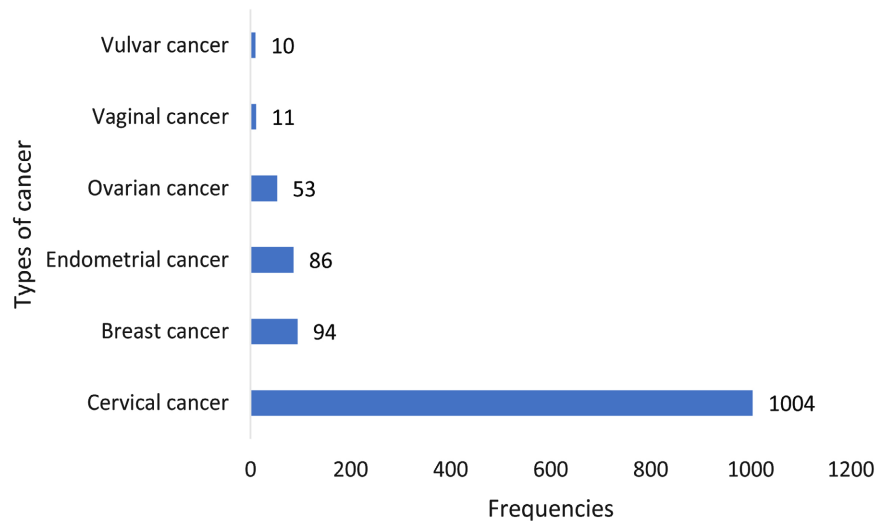


Figure 2. Frequency of endometrial cancer compared to other gynaecological cancers.

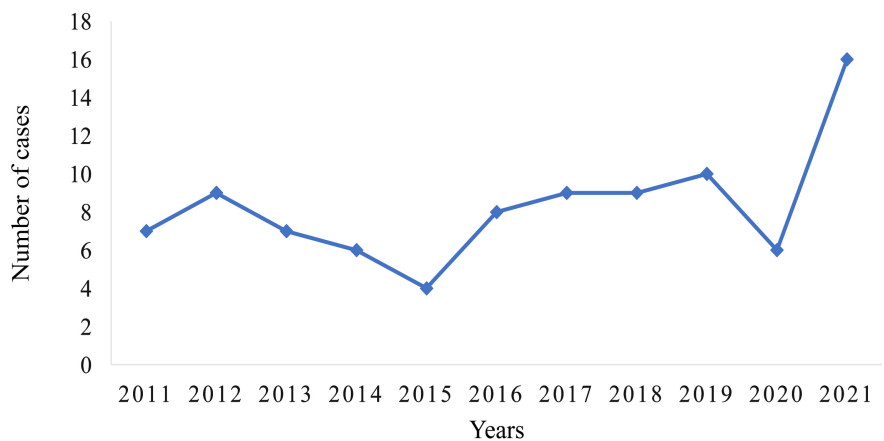


Figure 3. Distribution of endometrial cancer cases by year.

followed by stage II (27.9%), stage III (15.1%) and stage IV (3.5%) (**Table 2**).

3.2. Histological Appearance

Endometrioid adenocarcinoma was by far the most frequently encountered histological type (68.6%), followed by serous carcinoma (15.1%) versus 1.2% papillae carcinoma (**Table 3** and **Table 4**).

3.3. Therapeutic Aspect

Surgical treatment was performed in 83 patients (96.6%). Among the operated patients, 6 patients (7.2%) with FIGO stage IA, type I, Grade 1 or 2, underwent total hysterectomy plus bilateral adnexectomy. Forty patients (48.2%) who were at stage IA or IB, type 1, Grade 3 and type 2 underwent total hysterectomy plus bilateral adnexectomy and pelvic and lumbo-aortic lymphadenectomy. Thirty-seven patients (44.6%) presenting with stage II or III, all types and all grades, underwent total hysterectomy or colpohysterectomy (in the event of invasion of

Table 1. Distribution of endometrial cancer cases by socio-demographic characteristics.

Sociodemographic characteristics	Effective	Percentages (%)
Age (years)		
40 - 49	7	8.1
50 - 59	25	29.1
60 - 69	47	54.7
70 - 79	5	5.8
>80	2	2.3
Average: 63 ± 5 years Extreme: 40 and 86 years		
Education level		
Not in school	51	59.3
Primary	22	25.6
Secondary	12	14.0
Superior	1	1.1
Marital status		
Brides	31	36.0
widows	41	47.7
Divorced	12	14.0
Singles	2	2.3
Menopause		
Yes	79	91.9
No	7	8.1
Parity		
Nulliparous	26	30.2
Primiparous	16	18.6
Peaucipares	10	11.6
Multiparous	34	39.6
Occupation		
Housewives	56	65.1
Officials	4	4.7
liberal	12	14.0
Retired	14	16.2
Obesity		
Yes	56	65.1
No	30	34.9
High blood pressure		
Yes	67	77.9
No	19	22.1
Diabetes		
Yes	22	25.6
No	64	74.4

Table 2. Distribution of endometrial cancer cases by FIGO stage.

FIGO Stage		Effective	Percentage
Stage I	Stage Ia	39	45.3
	Stage Ib	7	8.1
Stage II		24	28.0
Stage III		13	15.1
Stage IV		3	3.5
Total		86	100.0

Table 3. Distribution of endometrial cancer cases according to histological type of tumour.

Histology result	Effective	Percentage (%)
Endometrioid adenocarcinoma	59	68.6
Serous carcinoma	13	15.1
Clear cell carcinoma	8	9.3
Mucinous carcinoma	5	5.8
Papilloid carcinoma	1	1.2
Total	86	100.0

Table 4. Distribution of the 59 cases of adenocarcinoma according to the grade of differentiation.

Endometrioid adenocarcinoma differentiation grade	Effective	Percentage
Grade 1 (well-differentiated tumor)	25	42.4
Grade 2 (Poorly differentiated tumor)	14	23.7
Grade 3 (Undifferentiated tumor)	20	33.9
Total	59	100.0

the cervix) plus bilateral annexectomy with omentectomy and pelvic lymphadenectomy and lumbo-aortic. Three patients benefited from chemotherapy alone, either 7.0% and three others received chemotherapy after surgery, either 7%. As radiotherapy and brachytherapy are carried out outside Guinea, data relating to these treatments were not available. The postoperative course was simple in 65 patients (78.3%), complicated by infection in 16 patients (19.3%) and hemorrhage in 2 patients (2.4%). Three cases of death (3.5%) were recorded, all before the intervention and related to the advanced stage of the disease (stage IV). Post-treatment monitoring of patients was based on the clinical examination of patients carried out every 6 months. After an average follow-up of 15 months, 70 patients were alive (84.5%) among which 7 patients presented a local recurrence, 3 a locoregional recurrence and 3 others metastases. Eleven patients died (13.3%) and 2 patients lost sight of (2.4%).

4. Discussion

Endometrial cancer is the third most common gynaecological cancer in our department after cervical cancer and breast cancer, with a frequency of 3.1%. This frequency is lower than that reported by Engbang *et al.* [5] in Cameroon, who found that endometrial cancer represented 6.88% of gynaecological cancers. However, it is higher than those reported by Ouédraogo *et al.* [6] in Burkina-Faso and Dem *et al.* [7] in Dakar, which were 2.7% and 2.0% of gynaecological and breast cancers, respectively. Several authors have reported that endometrial cancer is the most common gynaecological cancer in developed countries [8] [9] [10]. The frequency of endometrial cancer in our department has changed over time, with a decrease in the number of cases in 2015 and 2020 and a peak in 2021.

The mean age of the patients was 63 years old, ranging from 40 to 86 years old. The mean age found in this study is higher than those reported by Chekman *et al.* [10] in Algeria, Ouédraogo *et al.* [6] in Burkina-Faso and Engbang *et al.* [5] in Cameroon, which was 58.54 years, 56.7 years and 54.43 years respectively. The most affected age group was 60 - 69 years old, with a frequency of 54.7%. Engbang *et al.* [5] and Ouédraogo *et al.* [6] found higher frequencies for the age groups of 50 - 59 years and 51 - 60 years, respectively. Most of the patients were postmenopausal (91.9%). This result confirms that endometrial cancer is mainly a pathology of postmenopausal women [11] [12]. The same observation was made by Ouédraogo *et al.* [6], who found a proportion of 89.5% of postmenopausal patients in their study. Most of the patients were obese (65.1%), hypertensive (77.1%) and nulliparous (30.2%). According to Sobel *et al.* [4], obesity is a risk factor for endometrial cancer, and each increase of 10 units in body mass index increases the relative risk of endometrial cancer by 2.89. Jerome *et al.* [11] and Lansac [3] also reported that overweight is the first etiological factor due to hyperestrogenism, which is determined by promoting the aromatisation of androgens into estrogens in peripheral fats.

More than half of the patients (53.4%) were diagnosed with stage I of the disease. This result is consistent with those of Chekman *et al.* [10] and Scattarelli *et al.* [12], who reported 62.7% and 46% of patients with stage I endometrial cancer, respectively. Endometrioid adenocarcinoma was the most frequent histological type in our study (68.6%). The same observation was made by Ouédraogo *et al.* [6], Engbang *et al.* [5] and Chekmal *et al.* [10], who reported 67.0%, 68.2% and 84.0% of endometrioid adenocarcinoma respectively. Among the non-endometrioid types, serous carcinoma was the most common with 15.1%. Scattarelli *et al.* [12], on the other hand, reported higher frequencies of carcinosarcoma and serous or seropapillary carcinoma, with respective frequencies of 45.9% and 39.2%. Surgery was the main treatment performed (96.6%). The surgical procedure performed depended on the stage of the disease, ranging from total hysterectomy plus bilateral adnexectomy for stage I to colpohysterectomy plus adnexectomy and lymph node dissection beyond stage I. This attitude is in

accordance with the clinical guidelines of the Canadian Society of Gynecology and Obstetrics that surgery could be limited to hysterectomy and bilateral salpingo-oophorectomy as an acceptable alternative in patients with stage I disease [13]. Leary *et al.* [14] concluded that total hysterectomy and removal of the adnexa constitute the standard treatment for stage I endometrial cancer. According to Sobel *et al.* [4], for stage I, chemotherapy was rarely used, either pre- or post-operatively, in our study. According to Lheureux *et al.* [15], adjuvant chemotherapy can give promising results after surgery.

After a mean follow-up of 15 months, 84.5% of operated patients were alive. Chekman *et al.* [10] reported a 5-year overall survival that could vary from 92% to 42% for stage I depending on the histological characteristics of the tumor. For Jerome *et al.* [11], the 5-year survival rate for all stages combined, is estimated at 75%.

5. Conclusion

Endometrial cancer ranks third among gynaecological cancers in our department. It mainly affects postmenopausal women over 60 who are nulliparous, obese and hypertensive. Endometrioid adenocarcinoma is the most common histological subtype. Most of the patients are diagnosed at stage I. Surgery is the main treatment modality; most patients are alive after a mean follow-up of 15 months. Early detection and management of this disease could improve the prognosis.

Conflicts of Interest

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

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