



Research Article

Endometrial Cancer: Epidemiological Aspects, Management, and Prognosis at the Department of Obstetrics and Gynecology, Donka National Hospital

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Abstract

Introduction: The objective of this study was to contribute to the investigation of the epidemiological aspects, management, and prognosis of endometrial cancer at the Department of Obstetrics and Gynecology at Donka National teaching Hospital in Conakry. **Methodology:** This was a descriptive study involving the collection of retrospective data over a 15-year period from January 1, 2010, to December 31, 2024, focusing on cases of endometrial cancer. **Results:** The incidence of endometrial cancer was 2.4%. This cancer primarily affected patients aged 60 and older (58.9%), housewives (68.4%), married women (94.7%), and women with multiple pregnancies (49.5%). Metrorrhagia (100.0%) and abdominal-pelvic pain were the most frequently recorded reasons for consultation. Endometrial adenocarcinoma was the most common histological type (84.2%), and endometrial cancer was diagnosed as FIGO stage I in 34.7% of cases. Surgery was performed in 66.3% of patients, and 49.5% of them had received chemotherapy. Extrafascial hysterectomy with lymph node dissection and bilateral adnexectomy was the most commonly performed surgical procedure; extended colpophysterectomy with lymphadenectomy and bilateral adnexectomy was performed for more advanced cases. One-year survival was observed in 9 out of 10 patients, and five-year survival was recorded in nearly 4 out of 10 patients. **Conclusion:** Endometrial cancer is a common condition in our setting. Early diagnosis, prompt management, and improved access to chemotherapy and radiation therapy could improve patient prognosis.

Keywords

Endometrial Cancer, Epidemiology, Management, Prognosis, Donka

1. Introduction

Endometrial cancer is a malignant epithelial tumor that develops in the tissue lining the inside of the uterus. It is the sixth most common gynecological cancer and thus one of the most

widespread worldwide. It most commonly occurs in postmenopausal women between the ages of 55 and 65, with 14% of cases occurring in the premenopausal period and 5% of cases

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before age 40 [1, 2]. Endometrial cancer ranks third among gynecological and breast cancers [3]. This cancer is not accessible to screening; diagnosis is often delayed, and management remains challenging. It requires a multidisciplinary and specialized approach, particularly for high-risk patients and/or those with advanced cancer [4, 5]. Surgery remains the gold standard of treatment. Despite therapeutic advances in the management of localized stages, the 5-year survival rate is estimated at 75% and has shown little improvement over the past 20 years [6]. The incidence of endometrial cancer is highest in developed countries and is rising very rapidly in developing countries [7].

Late diagnosis, difficulties in management, and the high rates of morbidity and mortality associated with this cancer motivated this study, whose overall objective was to contribute to the study of epidemiological aspects, management, and prognosis.

2. Methodology

2.1. Study Setting

The Department of Gynecology and Obstetrics at Donka National Hospital, part of the Conakry Teaching Hospital, served as the setting for this study. It is the referral center for the management of gynecological oncological pathologies in Guinea.

2.2. Type and Duration

This was a retrospective, descriptive study conducted over a period of 15 years, from January 1, 2010, to December 31, 2024.

2.3. Population Characteristics

2.3.1. Target Population

This consisted of all medical records of patients who were treated for gynecological cancer in the department during the study period.

2.3.2. Study Population

This consisted of all patient records of women treated for endometrial cancer in the department during the study period.

2.3.3. Inclusion Criteria

All complete medical records of patients treated for endometrial cancer in the department during the study period were included in this study.

2.3.4. Exclusion Criteria

This study did not include incomplete medical records or those lacking histological evidence from patients treated for endometrial cancer in the department during the period mentioned above.

2.4. Sampling

We conducted a comprehensive review of all patient records meeting the inclusion criteria defined above.

2.5. Variables

These were qualitative and quantitative categorized according to the following epidemiological, clinical, para clinical, therapeutic, and prognostic aspects.

2.6. Data Collection

Data were collected through a review of the medical records of patients with endometrial cancer.

2.7. Data Analysis

Data were analyzed using SPSS 26.0 software, which was used to calculate proportions for qualitative variables and the mean, the standard deviation, and ranges for quantitative variables. Overall survival was estimated using the Kaplan-Meier curve.

2.8. Ethical Considerations

After obtaining authorization to collect data from the head of the Ethics Committee of the Faculty of Health Sciences and Technology, the information was collected with due regards to anonymity and confidentiality.

2.9. Limitations

These were related to the retrospective nature of the study and the low rates of completion of radiotherapy and chemotherapy.

3. Results

3.1. Frequency

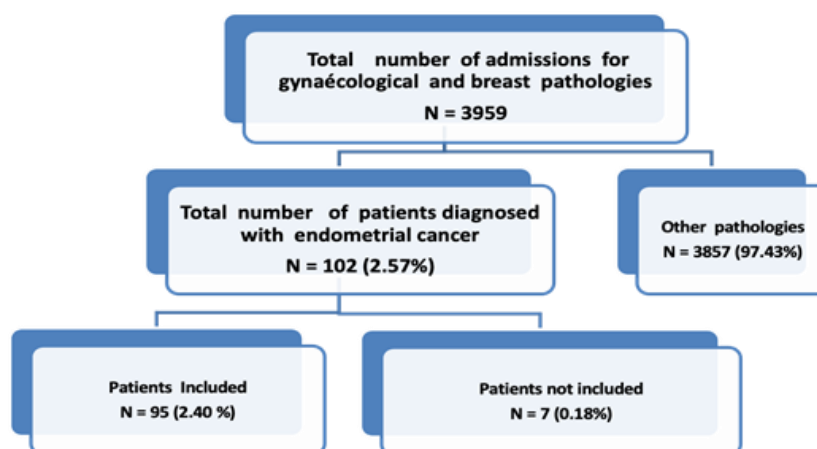


Figure 1. Flow chart of patient inclusion.

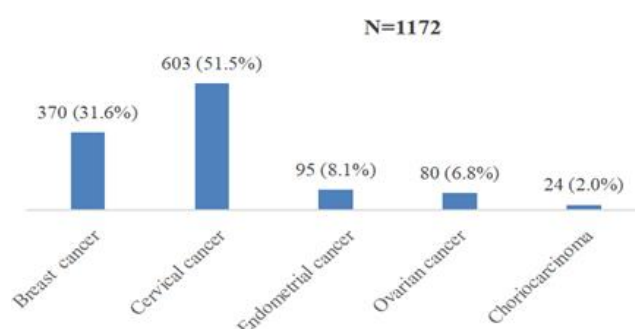


Figure 2. Incidence of endometrial cancer compared to other gynecological and breast cancers.

3.2. Epidemiological Characteristics

Table 1. Distribution of cases by sociodemographic characteristic.

Variables	Number	Percentage
Age		
<40	7	7.4
40-49	8	8.4
50-59	24	25.3
≥60	56	58.9
Mean age: 63.00 ± 13.5 years		Extremes: 15 and 102 years
Level of education		
No schooling	72	75.7
Elementary level	9	9.5
Secondary level	7	7.4

Variables	Number	Percentage
College level	7	7.4
Occupation		
Secondary school / college students	2	2.2
Homemakers	65	68.4
Self-employed	20	21.0
Employee/Salary earner	8	8.4
Marital status		
Single	2	2.1
Married	90	94.7
Widowed	3	3.2
Parity		
Nulliparous	2	2.1
Primiparous women	2	2.1
	16	16.9
Multiparous women	28	29.4

Risk factors for endometrial cancer

Late menopause (81.1%), arterial hypertension (21.1%), obesity (16.8%), diabetes (13.7%), and hormonal contraception (11.6%) were the most frequently observed risk factors.

3.3. Clinical Characteristics

Reasons for consultation

Metrorrhagia (100.0%), abdominal pain (46.3%), and menorrhagia (15.8%) were the most common reasons for consultation.

Time to consultation

The mean time to consultation was 46.03 ± 0.6 months, ranging from 12 to 180 months.

Table 2. Distribution of patients by histological type.

Histological types	Number	Percentage
Endometrial adenocarcinoma	80	84.2
Clear cell adenocarcinoma	3	3.2
Undifferentiated adenocarcinoma	1	1.1
Serous adenocarcinoma	7	7.3
Squamous adenocarcinoma	2	2.1
Leiomyosarcoma	2	2.1
Total	95	100.0

Staging workup

Cases of pelvic (7.4%) and lymph node (6.3%) invasion, as well as lung (5.3%), liver (8.4%), and bone (3.2%) metastases, and cervical stromal invasion (6.3%) were recorded.

Table 3. Distribution of patients according to FIGO classification.

Disease stage	Number of patients	Percentage
IA	33	34.7
IB	5	5.2
IC	7	7.4
IIA	6	6.4
IIB	12	12.6
IIIA	14	14.7
IIIB	13	13.7
IVB	5	5.3
Total	95	100.0

Histological grades

Nearly 7 out of 10 patients (69.5%) had a grade I lesion, followed by grade III (15.8%) and grade II (15.8%).

3.4. Management

Surgery was performed in 63 patients, or 66.3%. The commonest procedures were extrafascial hysterectomy with lymph node dissection (63.2%) combined with bilateral adnexectomy, extended colpohysterectomy with lymphadenectomy and bilateral adnexectomy was performed for more advanced cases, and total extrafascial hysterectomy with bilateral adnexectomy (12.6%).

Forty-seven patients, or 49.5%, received chemotherapy, of whom 63.8% received adjuvant chemotherapy and 29.8% neoadjuvant chemotherapy. Radiotherapy was administered to

29 patients, or 30.5%, the majority of whom received adjuvant radiotherapy (58.6%).

3.5. Prognosis

We identified 13 cases of postoperative complications among the 63 patients who underwent surgery, representing a frequency of 20.6%. These were primarily cases of anemia (30.7%), hypovolemic shock (23.1%), and 2 cases of recurrence (15.4%). The site of recurrence was pelvic in both patients, and the mean time to recurrence was 14 months, ranging from 2 to 24 months.

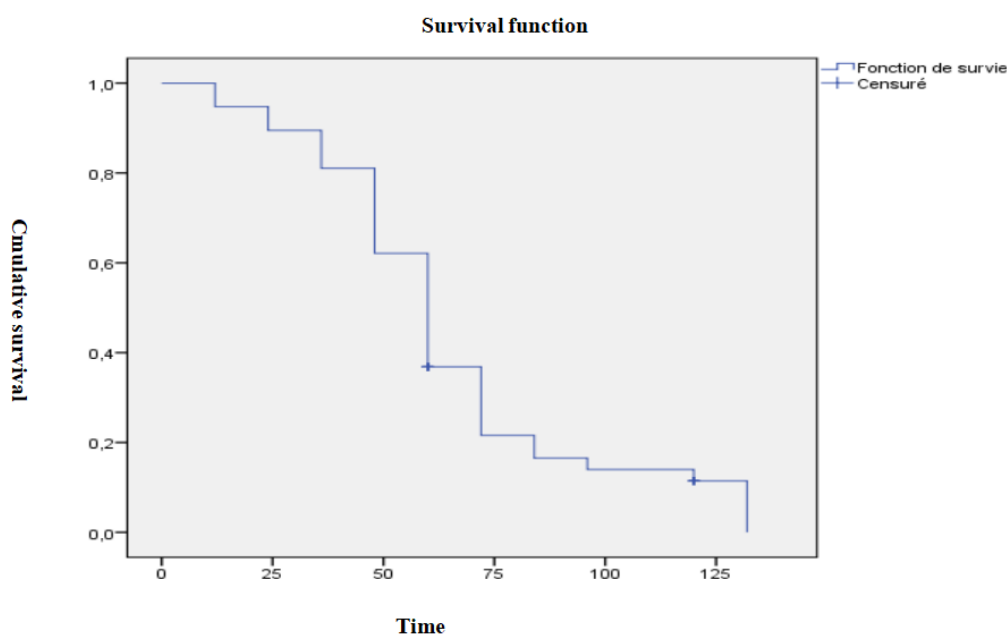


Figure 3. Overall survival of patients according to the Kaplan-Meier model.

The 1-year survival rate was 91.6%, compared with 82.1% at 2 years and 35.8% at 5 years.

Deaths occurred in advanced stages of the disease due to (43.7%), hypovolemic shock (3.1%), and septic shock (2.1%).

4. Discussion

We conducted a retrospective review of endometrial cancer cases managed in our department over a 15-year period to describe the epidemiological aspects, management, and prognosis of patients with this pathology.

The incidence of endometrial cancer in our series was 2.4%. This is lower than that reported by Diallo A et al. [3], who found an incidence of 3.1% in their study conducted in the same department over a 16-year period (2000-2015). However, this incidence is comparable to that found by Engohan-Alohge C et al. [8] in Burkina Faso, i.e. 2.5%. This finding could be explained by the fact that our study site remains the only facility providing care for most gynecological and breast

cancers in our country.

Endometrial cancer ranks third among gynecological and breast cancers in our series. Similar findings have been reported by some authors across the continent [3, 9, 10].

The age group ≥ 60 years was the most represented, accounting for 58.9%. The mean age of patients recorded in this series was identical to that reported by Diallo A et al. [3] but higher than those found in Burkina Faso (56.7 years) and Morocco (57 years) [11, 12].

Patients with no formal education were the most represented in this sample. This is consistent with the level of education among girls and women in our country [13].

Postmenopausal patients accounted for nearly 9 out of 10 of the population. The predominance of the postmenopausal period in the incidence of endometrial cancer has been reported by several authors on the continent, with proportions ranging from 79.7% to 89.5% [8, 9].

Endometrial cancer is a hormone-dependent cancer. Endogenous and exogenous hyperestrogenism are the main risk factors for this pathology.

Late menopause, obesity, diabetes, arterial hypertension, and hormonal contraception were the most frequently identified risk factors in our series. In the study by Collinet P et al. [14], the main reported risk factors for endometrial cancer were obesity, hyperestrogenism with a relative risk of approximately 2 to 3, and tamoxifen treatment with a 3.4-fold increased risk in patients treated for breast cancer. In some studies, the most frequently cited risk factors were reproductive history, contraceptive methods, hormonal treatments, and nutritional factors [15-18]. According to Lansac J et al., overweight is the primary etiological factor due to hyperestrogenism, which is determined by promoting the aromatization of androgens into estrogens in peripheral fat [19].

Postmenopausal metrorrhagia and abdominal-pelvic pain were the most common reasons for consultation in our sample. A similar finding was reported by Ouédraogo AS et al. [12]. Postmenopausal metrorrhagia was also described as the primary reason for consultation in endometrial cancer by certain authors in proportions of 92.3%, 82.36%, and 97%, respectively [12, 20]. An identical observation was also reported in the series by Caron O. [21], where nearly 90% of endometrial cancers are diagnosed after menopause. They usually present as metrorrhagia or even hydrorrhagia. More rarely, pelvic tenderness may be observed, sometimes accompanied by an inflammatory syndrome when there is cervical stenosis associated with hematometra [22].

The mean time to consultation for our patients was 46 months, with extremes ranging from 12 to 180 months. This delay in seeking care could be explained by our patients' frequent use of traditional medicine and the taboos surrounding complaints related to the genital area in women within our society.

The staging workup revealed metastases (lung, liver, and bone), pelvic and lymph node involvement, and infiltration of the cervical stroma. Similar findings were reported in the study by Doghri R et al. [4], with 27.0% of tumors extending to the cervix, 22.0% with lymph node involvement, 14.0% with extra uterine extension, and 40.0% with myometrial invasion $\geq 50\%$.

This study shows that endometrial adenocarcinoma (84.2%) was the commonest histological type, followed by serous adenocarcinoma (7.4%). In the series by Diallo A et al. and Doghri R et al., endometrial adenocarcinoma was the most frequently encountered histological type, with respective proportions of 68.6% and 84% [3, 5]. Regarding non-endometrioid types, serous adenocarcinoma was the commonest in some studies [3, 5, 23].

In the majority of cases, endometrial cancer was diagnosed at FIGO stage I (40%), followed by stage III (28.4%) and stage II (20%). Doghri R et al. [5] reported in their study a predominance of endometrial cancer diagnosed at FIGO stage I, with a proportion significantly higher than ours (56.0%). This difference could be explained by patients' delay in seeking medical attention upon the appearance of the first clinical signs.

This high rate of diagnosis at Stage I confers a relatively favorable prognosis, with a cancer mortality rate that remains the lowest compared to other female cancers [14, 24].

Regarding histological grade, nearly 7 out of 10 patients had endometrial cancer classified as grade I. This finding aligns with those of certain authors who report in their studies a predominance of patients diagnosed with grade 1 disease [3, 5].

Regarding the management, surgery was the most frequently used therapeutic modality, followed by chemotherapy and radiation therapy. In the literature, surgery is described as the first-line treatment, and nearly 90% of women with endometrial cancer are treated with surgery. The procedure generally consists of an extended colposalpingohysterectomy, including a bilateral adnexectomy, and it is argued that a simple total hysterectomy is sufficient for most women; a radical hysterectomy is sometimes performed in cases of cervical invasion or when there is uncertainty as to whether the primary tumor is endocervical or of endometrial origin [25, 26]. This first-line surgical management was also reported by some authors, who noted that it is based on the fact that the majority of endometrioid cancers are stage I and benefit from non-conservative hysterectomy (with removal of the fallopian tubes and ovaries) [27].

We recorded 47 patients out of the 95 who received chemotherapy (49.5%), with a predominance of adjuvant chemotherapy. A proportion lower than ours was reported by Chekman C et al., i.e. 21% of patients receiving chemotherapy [2]. Only 3 out of 10 patients had received radiotherapy (30.5%). A radiotherapy completion rate of 29% was reported in a study conducted in Algeria [2]. This low radiotherapy completion rate in our series could be explained by the fact that our country does not have a radiotherapy center, which forces patients to undergo this treatment in certain countries in the sub-region.

The prognosis for patients was marked by a 20.6% rate of postoperative complications. We concur with Diallo A et al. [3], who reported a 19.3% rate of postoperative complications in their series.

We recorded 2 cases of recurrence (13.4%) and 9 deaths, resulting in a mortality rate of 9.5%. The 1-year patient survival rate was 91.6%, compared to 82.1% at 2 years and 35.8% at 5 years. Diallo A et al. reported an 84.5% survival rate at 15 months [3, 8].

5. Conclusion

Endometrial cancer is a common pathology in our department, ranking 3rd among gynecological and breast cancers. Mortality associated with this pathology remains high in our setting due to late diagnosis and limited access to certain treatment modalities for advanced stages.

Early diagnosis, prompt and appropriate patient management, and improved access to chemotherapy and radiation therapy could improve the prognosis for patients with this cancer.

Abbreviations

FIGO International Federation of Gynecology and Obstetrics

Author Contributions

Mamadou Hady Diallo: Conceptualization, Methodology, Writing – original draft, Writing – review & editing

Alhassane II Sow: Conceptualization, Methodology, Software, Writing – original draft, Writing – review & editing

Mamoudou Magassouba: Data curation

Alhousseny Sidibe: Data curation

Daniel William Athanase Leno: Validation

Abdourahamane Diallo: Writing – review & editing

Ibrahima Sory Balde: Validation

Telly Sy: Validation

Namory Keita: Validation

Conflicts of Interest

The authors declare no conflicts of interest.

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