



Research Article

Cervical Cancer: Sociodemographic, Clinical, Histological, and Therapeutic Characteristics at the Maternity Unit of Ignace Deen National Hospital, Conakry

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Abstract

Introduction: Cervical cancer remains a major public health problem, particularly in low-resource countries. The objective was to describe the sociodemographic, clinical, histological characteristics and the management of this disease in the department. **Methodology:** This was a retrospective descriptive study conducted from January 1, 2021 to December 31, 2023. The study took place in the maternity unit of the National Hospital Ignace Deen. It included all patients hospitalized and managed for cervical cancer. All medical records of patients with histologically confirmed cervical cancer were included. Data collection was carried out through review of medical records using a survey form. **Results:** The frequency of cervical cancer was 39.5%, occurring most commonly in the 45–59-year age group (45.2%). Most patients were grand multiparous (45.1%), living in polygamous households (72.6%), and had no formal education (71.0%). The clinical presentation was dominated by metrorrhagia (98.4%) and hydrorrhea (85.5%). The cervix bled on contact in the majority of cases (82.3%), and parametrial infiltration was common. Stage IIB was the most frequent, and most tumors were squamous cell carcinomas. Treatment was primarily surgical, followed by chemotherapy. **Conclusion:** Cervical cancer is the most frequent gynecological cancer in the department. Diagnosis is often late, reducing therapeutic possibilities and survival chances.

Keywords

Cervical Cancer, Clinical, Histological, Therapeutic, Ignace Deen

1. Introduction

Cervical cancer remains a major public health problem, particularly in low-resource countries. Globally, it ranks among the most common cancers in women and is one of the most

prevalent gynecological malignancies [1, 2]. In developing countries, it represents one of the leading causes of cancer-related mortality among women [2, 3].

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According to recent global estimates, several hundred thousand new cases are diagnosed each year, with high morality predominantly affecting low- and middle-income countries [1, 3]. The burden of disease is particularly high in sub-Saharan Africa, where limited access to screening, early diagnosis, and appropriate treatment contributes to lower survival compared with high-income countries [4, 5].

Persistent infection with human papillomavirus (HPV) is the necessary cause of cervical cancer [6, 7]. In low-resource settings, insufficient prevention strategies—particularly HPV vaccination, organized screening, and early management of precancerous lesions—explain the frequent diagnosis at advanced stages and the poor prognosis [1, 4, 8].

In this context, the objective of this study was to describe the sociodemographic and clinical characteristics, staging, histological features, therapeutic management, and survival of patients with cervical cancer managed in our institution.

2. Methodology

This was a retrospective descriptive study conducted over a three-year period from January 1, 2021 to December 31, 2023. The study was carried out in the maternity unit of the National Hospital Ignace Deen, a referral center for gynecological and obstetric care in Conakry. It included all patients hospitalized and managed for cervical cancer during the study period.

All records of patients with histologically confirmed cervical cancer who received care in the department during the study period were included. Incomplete or poorly documented

records, as well as patients diagnosed with cervical cancer but not managed in the department, were excluded.

Data were collected retrospectively through review of medical records, hospitalization registers, and surgical protocol registers using a pre-established survey form. Variables studied included epidemiological, clinical, paraclinical, histological, therapeutic, and outcome characteristics.

Data entry was performed using Epi Info version 6 and exported to SPSS version 21.0 for statistical analysis. Quantitative variables were expressed as means with standard deviation, while qualitative variables were presented as frequencies and percentages. Results were reported in tables and figures, with statistical significance set at $p < 0.05$.

Ethical Considerations

Administrative authorization from the health facility authorities was obtained prior to conducting the study. Data were used strictly for scientific purposes, respecting patient anonymity and confidentiality.

3. Results

3.1. Frequency

Cervical cancers were the most frequent gynecological tumors, accounting for 39.5% of cases, followed by endometrial cancers (31.2%) and ovarian cancers (22.9%). Choriocarcinomas (5.1%) and vaginal tumors (1.3%) were markedly less represented.

Table 1. Frequency of gynecological tumors.

Gynecological tumors	Number	Percentage (%)
Cervical cancer	62	39.5
Endometrial cancer	49	31.2
Ovarian cancer	36	22.9
Choriocarcinoma	8	5.1
Vaginal tumors	2	1.3
Total	157	100

3.2. Demographic and Obstetric Characteristics of Patients

The analysis of sociodemographic characteristics showed that the most represented age group was 45–59 years (45.2%), followed by patients aged 60 years and over (25.8%) and those aged 30–44 years (24.2%), while women under 30 years were rare (4.8%).

From an obstetric perspective, grand multiparous women constituted the majority group (45.1%), followed by multiparous (29.0%), pauciparous (19.4%), and primiparous women (6.5%). In addition, 40.0% of patients were menopausal compared with 60.0% who were non-menopausal.

Regarding socioeconomic status, housewives predominated (43.5%), followed by self-employed women (35.5%) and salaried workers (12.9%). Most patients were married (70.9%), whereas widowed or divorced women accounted for 22.6%

and single women for 6.5%.

Household type was mainly polygamous (72.6%), with monogamy observed in 25.8% of cases. Overall educational level was low, with a high proportion of patients having no formal education (71.0%), compared with 17.7% with primary education, 8.1% with secondary education, and only 3.2% with higher education.

Table 2. Sociodemographic and obstetric characteristics of patients.

Characteristics	Number	Percentage (%)
Age (years)		
< 30	3	4.8
30–44	15	24.2
45–59	28	45.2
≥ 60	16	25.8
Parity		
Primiparous	4	6.5
Pauciparous (2–3)	12	19.4
Multiparous (4–5)	18	29.0
Grand multiparous (≥ 6)	28	45.1
Occupation		
Housewives	27	43.5
Self-employed	22	35.5
Salaried workers	8	12.9
Others	5	8.1
Marital status		
Married	44	70.9
Widowed/Divorced	14	22.6
Single	4	6.5
Household type		
Polygamous	45	72.6
Monogamous	12	25.8
No partner	4	1.6
Education level		
No formal education	44	71.0
Primary	11	17.7
Secondary	5	8.1
Higher	2	3.2

3.3. Clinical Characteristics of Patients

Metrorrhagia was the main functional symptom, observed

in almost all patients (98.4%), followed by foul leucorrhea or hydrorrhea (85.5%) and physical asthenia (67.7%). Abdominal pain was also frequent (61.3%), whereas dizziness (24.2%), pelvic heaviness (19.4%), and other complaints (9.7%) were less commonly reported.

On clinical examination, conjunctival coloration was normal in 41.9% of patients, hypocolored in 38.7%, and frankly pale in 19.4%, reflecting a notable frequency of anemia. General condition at admission was considered good in 56.7% of cases, fair in 40.0%, and poor in 3.3%.

Regarding cervical appearance, the cervix bled on contact in the vast majority of cases (82.3%), while ulceronecrotic (9.7%) and budding (6.4%) forms, as well as a normal-appearing cervix (1.6%), were rare. Tumor size was ≥ 4 cm in 53.2% of patients.

Finally, other severity signs were frequently observed, particularly a hard and irregular cervix (64.5%) and parametrial infiltration (61.3%). The uterus was of normal size in 45.2% of cases and enlarged in 29.0%, while supple parametrium was noted in 22.6% of patients.

Table 3. Clinical characteristics of patients.

Clinical data	Number	Percentage (%)
Functional signs		
Metrorrhagia	61	98.4
Foul leucorrhea / hydrorrhea	53	85.5
Physical asthenia	42	67.7
Abdominal pain	38	61.3
Dizziness	15	24.2
Pelvic heaviness	12	19.4
Other complaints	6	9.7
Conjunctival coloration		
Normal-colored	26	41.9
Hypocolored	24	38.7
Pale	12	19.4
General condition		
Good	35	56.7
Fair	25	40.0
Poor	2	3.3
Cervical appearance		
Bleeding on contact	51	82.3
Ulceronecrotic	6	9.7
Budding	4	6.4
Normal cervix	1	1.6

Clinical data	Number	Percentage (%)
Tumor size		
≥ 4 cm	33	53.2
< 4 cm	29	46.8
Other clinical signs		
Hard and irregular cervix	40	64.5
Parametrial infiltration	38	61.3
Normal-sized uterus	28	45.2
Enlarged uterus	18	29.0
Supple parametrium	14	22.6

3.4. Distribution of Patients According to FIGO Stage

The distribution of patients according to the FIGO classification showed a predominance of locally advanced stages. Stage IIB was the most frequent, accounting for 37.1% of cases, followed by stages IIA (17.7%) and IB (16.1%). More advanced forms, particularly stages IIIB and IV, represented 12.9% and 9.7% of cases, respectively. Conversely, early stages were rarely observed, with only 6.5% at stage IA. Overall, the majority of patients were diagnosed at a stage equal to or greater than IIB, reflecting a significant diagnostic delay.

Table 4. Distribution of patients according to FIGO stage.

FIGO stage	Number	Percentage (%)
IA	4	6.5
IB	10	16.1
IIA	11	17.7
IIB	23	37.1
IIIB	8	12.9
IV	6	9.7
Total	62	100

3.5. Histopathological Findings

Histopathological examination revealed a clear predominance of squamous cell carcinoma, observed in 85.5% of patients, while adenocarcinoma accounted for 14.5% of cases. No other histological type was identified in the series.

3.6. Extension Workup

Abdominopelvic magnetic resonance imaging (MRI) was performed in 17 patients, representing 27.4% of the cohort.

Among them, the examination showed bladder invasion in 14 cases (22.3% of all patients) and lymph node involvement in 6 cases (9.7%). Conversely, MRI was not performed in 47 patients (72.6%). These findings indicate a high proportion of locally advanced disease at diagnosis, particularly characterized by extension to adjacent organs and lymphatic structures.

3.7. Therapeutic Modalities

From a surgical perspective, extended colpohysterectomy with lymphadenectomy was performed in 44 patients (70.9%), and total hysterectomy in 9 patients (14.5%). In addition, 12 patients (19.4%) received therapeutic abstention with initiation of palliative care.

Regarding overall management, all patients received analgesics (100%). Intravenous fluid infusion was administered in 52 patients (83.9%) and antibiotic therapy in 54 patients (87.1%). Anti-anemic treatment was initiated in 46 cases (74.2%), while chemotherapy concerned 44 patients (70.9%). Blood transfusion was performed in 30 patients (48.4%).

Overall, 3 patients (4.8%) were referred for radiotherapy before surgery. After surgical management, operated patients were also referred to specialized centers in the sub-region for complementary radiotherapy according to therapeutic indications.

3.8. Three-Year Survival

Regarding outcomes, 36 patients were alive at the time of evaluation, corresponding to 58.1% of the cohort. In contrast, 4 deaths were recorded (6.5%). Survival could not be assessed for the remaining patients in the sample (22 cases), who were lost to follow-up.

4. Discussion

The predominance of middle-aged and older women observed in our series is consistent with African data indicating that peak incidence occurs after 50 years of age and that advanced age is associated with late diagnosis [4, 9]. The high frequency of multiparity is a recognized risk factor, linked to prolonged exposure to oncogenic HPV and repeated cervical trauma [7, 10]. The large proportion of uneducated women with low socioeconomic status reflects inequalities in access to screening and healthcare, which contribute to higher mortality in low- and middle-income countries [3, 4, 11].

Metrorrhagia was the main presenting symptom, in accordance with the literature where abnormal genital bleeding is the most frequent inaugural sign and often reflects already locally advanced disease [5, 12]. Anemia, deterioration of general condition, and pelvic pain observed in our series indicate frequent diagnostic delay in settings with low screening coverage [4, 11, 13]. The predominance of a bleeding, irregular cervix with parametrial infiltration corresponds to locally advanced forms classically described in sub-Saharan Africa [5, 9].

The majority of locally advanced stages, particularly stage IIB, confirms the late diagnosis reported in resource-limited countries, where the absence of organized screening reduces curative therapeutic options and worsens survival [4, 8, 14]. Globally, more than half of cervical cancers in Africa are diagnosed at an advanced stage, explaining major regional survival disparities [3, 14].

The predominance of squamous cell carcinoma is consistent with international data, this type representing the majority of cervical cancers, while adenocarcinoma remains less frequent but is increasing [5, 12, 15]. This distribution confirms the central role of persistent oncogenic HPV infection in cervical carcinogenesis [6, 7].

Regarding therapeutic management, the combined approach including supportive care, radical surgery, and adjuvant chemoradiotherapy observed in our series is consistent with international recommendations for cervical cancer management [5, 16]. In resource-limited settings, restricted access to radiotherapy and comprehensive treatment remains a major determinant of prognosis [11, 17].

The overall post-therapeutic survival observed in our series cannot be directly compared with the standard 5-year survival reported in the international literature, but it constitutes a relevant intermediate indicator in contexts of limited follow-up. Globally, cervical cancer survival remains significantly lower in low- and middle-income countries due to late diagnosis and inequalities in access to specialized treatment [17, 18].

5. Conclusion

Our study first highlights that cervical cancer is the most frequent gynecological cancer in the department. It mainly affects older, multiparous women of low socioeconomic status, with late clinical presentation dominated by locally advanced stages. Histologically, squamous cell carcinoma remains the predominant form. This diagnostic delay limits curative treatment options and reduces patient survival. These findings underscore the need to strengthen HPV vaccination, organized screening, and access to specialized care in order to reduce morbidity and mortality related to this disease.

Conflicts of Interest

The authors declare no conflicts of interest.

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