



Precancerous Lesions of the Cervix: Screening and Management at the Matam Maternity Hospital and the Donka Gynaecological Cancer Prevention Centre (Guinea)

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Abstract: *Introduction:* Screening consists of the presumptive identification, by means of tests applied in a systematic and standardised manner, of subjects suffering from a disease or abnormality that has previously gone unnoticed. The aim of this work was to contribute to the study of screening and management of precancerous lesions of the cervix in women seen at the centres. *Patients and methods:* This was a prospective, descriptive study lasting twelve (12) months from 17/09/2020 to 16/09/2022. It concerned all women seen for screening for precancerous lesions of the cervix during the period and who had agreed to participate voluntarily in the study. *Results:* screening for precancerous and cancerous lesions of the cervix was carried out in 35.06% of the women seen during the study period, and precancerous lesions were detected by VIA in 9.60% of them. Most of the women were aged between 31 and 39, with an average age of 36, married (86.66%), not in education (60.66%), had a liberal profession (55.46%) as their main occupation and were multiparous (37.26%). Screening and vaginal bleeding were the main reasons for consultation. Of the women screened positive for VIA, 218 had undergone cryotherapy and 26 had undergone loop electrosurgical resection. All had a favourable outcome. *Conclusion:* Cervical cancer is a major public health problem in developing countries such as Guinea. This study demonstrated the effectiveness of screening and management of precancerous lesions in the secondary prevention of cervical cancer.

Keywords: Screening, Precancerous Lesions, Cervix, Management, Conakry

1. Introduction

Screening involves the presumptive identification, by means of tests applied in a systematic and standardised manner, of subjects suffering from a disease or abnormality that has previously gone unnoticed. Precancerous lesions of the cervix are changes in cervical cells in a zone known as the transformation zone [1]. If left untreated, these conditions, which are not yet cancers, can develop into cervical cancer [1].

Worldwide, cervical cancer is the fourth most common

cancer in women [2], with more than 500,000 new cases each year and around 270,000 deaths annually, with major geographical disparities. Mortality peaks worldwide at the age of 50 [3].

In Europe, an estimated 61,100 women are diagnosed with cervical cancer each year, 24,000 of whom die from the disease [4].

However, in Africa, it remains the leading cancer in women [5]. In Guinea, it accounts for more than 50% of all cancers [6] and is a real public health problem, adversely affecting the morbidity and mortality of women, with an

incidence of 49.6 per 100.000 women [7].

As in most developing countries, in Guinea cervical cancer is diagnosed late at stages 3 and 4, making it difficult to manage, with costly treatment involving surgery and radiotherapy, resulting in high mortality.

However, the accessibility of the cervix to speculum examination means that screening is possible at an early stage, enabling precancerous or cancerous lesions to be detected at an early stage, with a very high chance of cure.

Because of the health problems posed by this cancer in our regions and the inaccessibility of health care to the population, the WHO has proposed the "see and treat" strategy, the aim of which is to detect and treat precancerous lesions of the cervix at an early stage.

The objectives of this study were to calculate the participation rate of women in screening for precancerous and cancerous lesions of the cervix, to determine the frequency of lesions observed, to identify the socio-demographic profile of patients who benefited from screening and to describe the management of lesions detected in the study sites.

2. Patients and Methods

2.1. Type, Location and Period of Study

This was a prospective descriptive study lasting twelve (12) months, from 17/09/2020 to 16/09/2021, carried out at the Matam Communal Medical Centre (CMC) maternity hospital and the Donka Francophone Regional Training Centre for the Prevention of Gynaecological Cancers (CERFFO - PCG) in Conakry.

2.2. Study Population

The study covered all patients admitted or referred for screening during the study period who agreed to participate in the study and who met the inclusion criteria.

2.3. Selection Criteria

All women admitted for screening for precancerous lesions of the cervix during the study period and who had agreed to

participate voluntarily in the study were included in the study.

Patients admitted for gynaecological emergencies other than cervical pathology and obstetric emergencies, those in labour, those who had undergone total hysterectomy and virgin patients were not included in our study.

The variables were sociodemographic, clinical and patient management.

2.4. Data Collection and Analysis

The data were collected on a form drawn up according to the objectives and variables, and analysed using version 7 of the epi Info software. Simple frequencies were calculated for qualitative variables and means with standard deviations for quantitative variables.

2.5. Ethical Considerations

Before starting the survey we obtained the agreement of the authorities of the centres concerned. Verbal and written informed consent was obtained from all patients, who were assured that the information collected and the collection tools were protected from any indiscretion and would be used only by health professionals for scientific purposes.

2.6. Limitations

The results of this study, without claiming to be nationwide, can only be applied to the study sites. It should be noted that only small and medium-sized precancerous lesions were treated at the gynaecology-obstetrics department of the Matam CMC, while large lesions were treated at the CERFFO - PCG of the Donka CHU after histological examination.

3. Results

3.1. Frequency of Screening for Precancerous Cervical Lesions

During the study period, 6584 patients visited the centres, of whom 2308 (35.06%) were screened for precancerous lesions of the cervix.

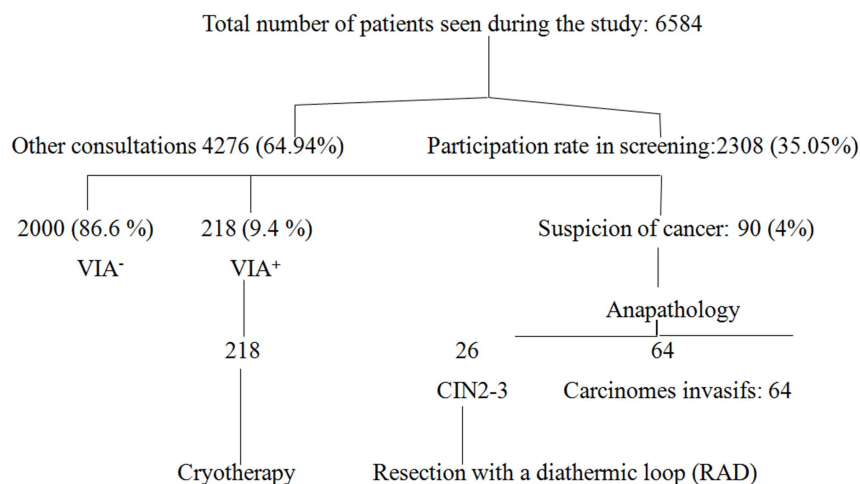


Figure 1. Distribution of patients seen at the Centre Médical Communal de Matam and the CERFO - PCG of the CHU de Donka during the study period.

Table 1. Breakdown of patients screened according to the type of lesion observed.

| Type of lesions observed | Number (n=2308) | Frequency (%) |
|--------------------------|-----------------|---------------|
| Tissu normal | 2000 | 86.66 |
| Lésions précancéreuses | 218 | 9.45 |
| Suspicion de cancer | 90 | 3.89 |

Precancerous lesions of the cervix were observed in 218 patients (9.4%), normal tissue in 2000 patients (86.6%) and suspected cancer (3.9%).

3.2. Socio-Demographic and Obstetrical Characteristics

Table 2. Socio-demographic and obstetric characteristics of screened patients.

| Characteristics | Number (n=2308) | Frequency |
|--------------------------|----------------------|-------------|
| Age | | |
| 20 - 29 | 480 | 20.80 |
| 31 - 39 | 1150 | 49.82 |
| 41 - 49 | 470 | 20.36 |
| 51 - 59 | 170 | 7.36 |
| ≥ 60 | 38 | 1.64 |
| Average age: 36.36 years | Extreme: 22-70 years | Maximum= 70 |
| Marital status | | |
| Married | 2000 | 86.66 |
| Single | 220 | 9.53 |
| Divorced | 28 | 1.21 |
| Widowed | 60 | 2.60 |
| Profession | | |
| Housekeeper | 620 | 26.86 |
| Liberal profession | 1280 | 55.46 |
| Employed | 260 | 11.27 |
| Student | 148 | 6.41 |
| Level of education | | |
| No education | 1400 | 60.66 |
| Primary | 180 | 7.80 |
| Secondary | 458 | 19.84 |
| Higher | 270 | 11.70 |
| Parity | | |
| Nulliparous | 80 | 3.47 |
| Primiparous | 230 | 9.97 |
| Pauciparous | 830 | 35.96 |
| Multiparous | 860 | 37.26 |
| Large multiparous | 308 | 13.34 |

The average age of the patients was 36.36 years with extremes of 22 - 70 years and the age range 31 - 39 years (49.82%), 86.66% were married and 60.66% were not in education. Multiparous women accounted for 37.26% of patients compared with 35.26% of pauciparous women.

Table 3. Breakdown of patients screened by reason for consultation.

| Reason for consultation | Number (n=2308) | Frequency |
|-------------------------|-----------------|-----------|
| Screening | 2237 | 96.92 |
| Vaginal bleeding | 68 | 2.95 |
| Vaginal discharge | 32 | 1.39 |
| Pelvic pain | 12 | 0.52 |

Screening (96.92%) was the most frequent reason for consultation, followed by vaginal bleeding (2.95%), vaginal discharge (1.39%) and abdominal pain (0.52%).

3.3. Taking Charge

Table 4. Distribution of patients screened according to management.

| Coverage | Number |
|--|--------|
| Cryotherapy | 218 |
| Loop electrosurgical excision procedure (LEEP) | 26 |
| Referred | 64 |

In this study, 2,000 patients who were VIA negative were informed of the benefits of follow-up every three years, 218 patients who were VIA positive and therefore had precancerous lesions were treated with cryotherapy, and 26 patients underwent loop electrosurgical excision procedure (LEEP).

Table 5. Breakdown of patients screened according to outcome.

| Evolution | Cryotherapy | RAD |
|---------------------|-------------|-----|
| Number | 218 | 26 |
| Favourable | 218 | 26 |
| Unfavourable | 0 | 00 |
| Complication Deaths | 0 | 00 |
| TOTAL | 218 | 26 |

The outcome was favourable in 100% of patients treated.

4. Discussion

The screening rate for precancerous cervical lesions using the VIA test was 35.06% in this study. This result is higher than that of Dumont A et al in 2017 in Madagascar, who reported a screening frequency of 18% [8], out of 1569 women screened. This difference could be explained by the higher number of women screened in our study.

Precancerous lesions of the cervix were observed in 218 patients (9.4%) and normal tissue in 86.6% of patients. This result is slightly lower than that of Mutyaba Twaha et al [9] in 2010 in Uganda, who reported a frequency of 11.1% precancerous lesions and 88.9% normal tissue. This result is lower than those of Meghan J Huchko et al in 2014 in Kenya [10] and Traoré T et al [11] in 2022 in Mali, who reported a frequency of 26.4% and 14.6% of precancerous lesions respectively, and higher than those of Tebeu P. M et al [12] in 2005 and Kabitou Salifou et al [13] in 2015 in Benin, who reported 7.9% and 6.81% respectively. This difference could be explained not only by the duration of the survey, which was 3 years in their study, but also by the awareness campaigns organised before their visit.

During the study period, 64 cases of cancerous lesions were recorded. This result is far superior to that of Dumont A. et al [8], in 2018 in Madagascar, who reported four (4) patients with macroscopic signs of invasive cancer, hence the need to introduce regular screening of patients in order to limit late diagnosis of one of the rare cancers that can be diagnosed and treated at an early stage.

The average age of the patients was 36.36 years, ranging from 22 to 70 years, and the 31-39 age group was the most represented, with 1,150 patients (49.82%). This result is

similar to that reported by Dumont A. *et al* [8], in 2017 in Madagascar who noted a frequency of 52.5% for the 30 - 39 age group and lower than that of Kassa L. S *et al* [14] in 2019 in Ethiopia who reported a frequency of 53.6% had between 30 - 39 years. This could be explained by the fact that women over the age of thirty are more likely to discuss sexual issues with those around them, as the intimate nature of the organ concerned makes women less willing to share the problem of cervical cancer. It should also be noted that women consult a doctor more often at this age, which is also the age at which cervical cancer occurs.

More than 4/5 (86.66%) of our population were married compared with 9.53% single. These figures are much higher than those of Kassa L. S *et al* [14] in Ethiopia in 2019, who reported a frequency of 56.1% married women. In Guinean society, the legitimate framework for procreation and sexual activity is marriage, which could explain the high rate of marriage in this study.

During the course of the study, it became apparent that more than half (60.66%) of the patients had no schooling, and 19.84% had secondary education. This result is much better than that of J.-C. Boulanger *et al* [15] in 2007 in France, who reported a frequency of 10.20% of patients with no schooling. The role of education is a determining factor in the occurrence of precancerous and cancerous lesions of the cervix, since the higher the level of education, the fewer the lesions.

In this study, 37.26% of patients were multiparous, compared with 35.26% pauciparous and 29.97% primiparous. This result is similar to that of V Lavoué [16] in 2009 in France, who reported a frequency of 47% for multiparous women, 44% for pauciparous women and 9% for nulliparous women. These results are in line with those in the literature [17], which report that multiparity is a risk factor for cervical cancer.

Screening (96.92%) was the most frequent reason for consultation, followed by vaginal bleeding (2.95%), vaginal discharge (1.39%) and pelvic pain (0.52%). Our results confirm those of the literature [18], which reports that vaginal bleeding, pelvic pain and vaginal discharge are the first clinical signs of cervical cancer.

All patients tested positive for VIA (218) were treated with cryotherapy and 26 patients underwent loop electrosurgical excision procedure (LEEP). The result is far superior to those of Leno DWA *et al* [19] in 2012 - 2013 in Conakry who reported 28 cases of cryotherapy and 7 cases of loop electrosurgical excision procedure (LEEP). Out of a total of 1,000 women expected during the two screening campaigns, as did Some O.-R. *et al* [20] in Senegal in 2016 who reported 23 cases of cryotherapy out of a total of 1,836. This difference demonstrates the persistence of the high frequency of this pathology despite the efforts made by the authorities to eradicate this scourge in our regions and leads us to make greater efforts to achieve this objective in the years to come. The outcome was favourable for all the cases that were treated, apart from the discomfort experienced by some patients during treatment.

5. Conclusion

Precancerous lesions of the cervix are a major public health problem, as is the case in developing countries, particularly Guinea.

Screening was frequently performed in this study (35.06%) and precancerous lesions of the cervix were detected in most cases (9.40%).

Women aged 31-39 years were the most represented, with an average age of 36.36 years. Most of the patients were married (86.66%), and self-employment was their main occupation (55.46%). The majority of patients did not attend school (60.66%). Multiparous women were the most represented, at 37.26%. Screening and vaginal bleeding were the most frequent reasons for consultation in this study.

Cryotherapy and loop electrosurgical resection were the main management modalities, and the outcome was favourable in all cases managed.

This study demonstrated the effectiveness of secondary prevention through the detection and management of these lesions.

Raising public awareness of the benefits of screening could improve attendance at services, so that more cases can be diagnosed and better managed.

Conflicts of Interest

The authors declare no conflicts of interest.

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