

Epidemiological and Therapeutic Aspects of the Single Visit Approach in the Management of Precancerous Lesions of the Cervix in Guinea Conakry in 2022

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Abstract: *Objective:* to evaluate the epidemiological and therapeutic aspects of the single visit approach in the management of precancerous lesions of the cervix in the CECAP sites of Conakry in 2022. *Methodology:* This was a multicenter cross-sectional descriptive study, using retrospective data at the six CECAP sites from July 1 to Conakry. Three data collection tools: the individual form, a screening register, and a monthly summary sheet or reporting template, were used to track key single-visit service variables: the number of women screened using VIA, proportion of women screened positive for VIA and proportion of women screened VIA positive who received cryotherapy on the same day, KoBo Collect served the collections and the analysis was carried out by the software EPI info version 7.2 6. *Results:* during our three-month study, in the six pilot sites of Conakry, 786 women were screened, of whom 3.18% (25/786), had IVA+, 62.5% benefited from cryotherapy the same day, it was postponed in 37.5% of cases, the program did not train providers in the management of large lesions, which is one of the limitations of our study. *Conclusion:* Visual inspection with acetic acid is a simple test, requiring minimal infrastructure and expense, little provider training. The integration of VIA with cryotherapy at the primary care level in the communal medical centers of the city of Conakry, could constitute a feasible program for the prevention of cervical cancer in Guinea.

Keywords: Single Visit, Epidemiology, Therapeutic Cervical Precancerous Lesions, Cryotherapy Conakry 2022

1. Introduction

According to the World Health Organization (WHO), the single visit is defined as an approach that consists of visual inspection with dilute acetic acid (VIA), coupled with cryotherapy treatment of precancerous lesions of the cervix. the uterus [1]. The precancerous lesion of the cervix is an anomaly, epithelial, asymptomatic and benign but which can transform into invasive cancer, in the absence of adequate care [2]. Cancer of the cervix (CCU), is the most common cancer in African women, on the world, only breast cancer exceeds it [3]. Globally, cervical cancer has the third highest incidence rate of all cancers in women, with more than 500,000 new cases

per year. It causes approximately 265,672 deaths each year. In Guinea, the incidence of CCU exceeds that of any other cancer in women, accounting for 41 per 100,000 [4]. Treatment of advanced cancer is very difficult in most developing countries, while effective treatment of pre-invasive cancer should be technically possible [5]. Also, the single visit is considered an alternative method of screening and treatment at low cost. It requires minimal infrastructure and can be implemented by non-physician healthcare providers with targeted training [6]. This is why the Ministry of Health launched Cervical and Breast Cancer Prevention (CECAP) in 2012, in partnership with the Johns Hopkins program for international Education in Gynecology and Obstetrics (JHPIEGO), through the High Quality of Services project. Health for Development (HSD). It

is an experimental initiative in the five municipal medical centers (CMC) and the maternity hospital of the Ignace Deen University Hospital Center (CHU). We will scale up in the seven regional hospitals in the country. The goal of treatment for precancerous lesions is to remove the lesion, which can be accomplished by ablation (cryotherapy or cautery), loop electrical excision procedure (LEEP), cone biopsy, or hysterectomy [7, 8, 9]. All these treatment methods have a good success rate, the objective of this study was to evaluate the epidemiological and therapeutic aspects of the single visit approach, in the management of precancerous lesions of the cervix in the CECAP sites in Conakry in 2022.

2. Methodology

2.1. Design

2.1.1. Type of Study

This was a multicenter cross-sectional descriptive study using retrospective data from medical records and registers in the six CECAP sites in Conakry.

2.1.2. Place of Study

The study took place in the communal medical centers (CMC) hosting the CECAP sites, including the maternity hospital of the CHU Ignace Deen in the city of Conakry in 2022.

2.1.3. Study Period

The study period was three from July 1 to September 30, 2022.

2.1.4. Duration of Study

The duration of the study was 12 months from January 1 to December 31, 2022.

2.1.5. Target Population

It was made up of the records of women screened for gynecological and breast cancer.

2.1.6. Inclusion Criteria

Were included in this study, the records of women screened by the single visit for precancerous lesions of the cervix during the period.

2.1.7. Exclusion Criteria

Were excluded, the files not having elements of appreciation and the files of the women before the period of study.

2.2. Method of Recruitment

We conducted a non-probabilistic recruitment of all files meeting the inclusion criteria, which allowed us to obtain the sample size at the end of the survey.

2.3. The Variables of Interest

The three key variables of CECAP relating to epidemiological and therapeutic aspects were studied: number of women screened using VIA, Proportion of women screened VIA positive, the proportion of women screened VIA positive who received cryotherapy the same day.

2.4. Collection Tool

For data collection, we used the individual client form, the client register and the monthly summary sheet or reporting template.

2.5. Collection Procedure

The collection procedure was carried out through the documentary review of the files, the registers, the reporting framework.

The information collected related to the single clinical visit, a data collection sheet established with the different variables to facilitate data entry.

2.6. Data Analysis

The data was collected, using the Kobocollecte software and analyzed by EPI info version 5.5 2. In accordance with the objectives, for the calculation of the frequency, we defined the numerator which is the number of women with IVA+ who received cryotherapy on the same day and the denominator the number of women screened during the study period.

We have defined the numerator the number (n) and the denominator the total number (N).

3. Results

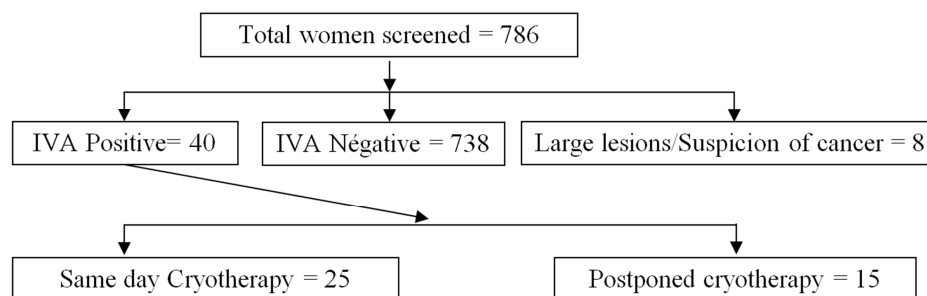


Figure 1. Flowchart.

The frequency of the single clinical visit, in the management of precancerous lesions of the cervix in the CECAP sites of Conakry in 2022 was 3.18% (25/786),

Table 1. Number of women screened by VIA in the six CECAP sites in Conakry in 2022.

Study sites	Matam	Ratoma	Bernard Kouchner	Minière	Coleah	Ignace Deen	Total
Month							
July	77	20	47	34	68	24	270
August	30	49	52	32	103	33	299
September	43	29	37	34	43	31	217
Total	150	98	136	100	214	88	786

Table 2. The proportion of women whose VIA screening is positive in the six CECAP sites in Conakry in 2022.

Study sites	25-29%	30-49%	>49%
Matam	2/48 (4,16)	4/102 (3,92)	(00)
Minière	1/38 (2,63)	3/62 (4,83)	(00)
Ratoma	1/50 (2)	1/48 (2,08)	(00)
Bernard Kouchner	2/67 (2,98)	2/69 (2,89)	(00)
Coléah	2/13 (15,38)	13/201 (6,46)	(00)
Ignace Deen	2/23 (8,69)	7/65 (10,76)	(00)
Total	10/239 (4,18)	30/547 (5,48)	(00)

Table 3. The proportion of women screened positive for VIA who received cryotherapy on the same day in a single visit in the six CECAP sites in Conakry in 2022.

Month	Total number of women screened in the six sites	Among the women screened			
		IVA+	IVA-	IVA+ who received cryotherapy on the same day	Suspicion of cancer
July	270	10	261	5/10 (50%)	2
August	299	14	282	11/14 (78,57%)	3
September	217	16	203	9/16 (56,25%)	3
Total	786	40	738	25 /40 (62,5%)	8

Text 1: 40 women with IVA+, eligible for cryotherapy, 15 postponed their procedure, i.e. 37.5%. The age group of 30 to 49 years was the most represented (9/30), with 30%.

Text 2: women referred for large lesions are more numerous after 49 years, i.e. 9.09%

4. Discussion

Our study revealed weaknesses during data collection at the sites, lack of training of providers on the program's management of large lesions;

The lack of follow-up of women who tested positive and who benefited from cryotherapy because the collection period does not cover the duration of the control which is 12 months;

The form does not take into account marital status (marital status), occupation, level of education, pregnancy history (gestation, parity), risk factors for cervical cancer.

4.1. Epidemiological Aspects

Our multicenter cross-sectional study of three (3) months, reported the frequency of 3.18% (25/786) of women who benefited from the management of precancerous lesions through the single visit approach in the sites of our study, this frequency remains lower than that reported by Yacouba *et al.* in Burkina-Faso which was 8.9 [10, 11], this difference could be explained by the duration of the study as well as the study population.

The number of women screened by VIA (Table 1) in the five sites of the study increased from 88 for the maternity of the national hospital Ignace Deen to 214 cases for the CMC of Coléah. Visitation to the sites remains low, compared to the

female population in reproductive activity, which was 153,601 for the Municipal Health Directorate (DCS) of Dixinn housing the CMC de la Minière; 70,665 for the DCS of Kaloum, housing both the Maternity of the Ignace Deen National Hospital and the CMC of Bernard Kouchner; 162,082 for the DCS of Matam hosting the CMC of Matam; 738150 for the Ratoma DCS where the Ratoma CMC is located. The largest municipalities in the city of Conakry are Matoto and Ratoma, which represent nearly 80% of the population. The Matam, Bernard Kouchner, Minière and Coleah sites carried out more screenings than the other sites. This could be explained by the extension of the training to other untrained providers.

To increase screening coverage, emphasis should be placed on raising awareness at all levels on the one hand; and on the other hand, by the participation of the staff of the parent site in screening for gynecological and breast cancers in the new sites. This approach would encourage women to attend the new sites, thanks to the presence of providers. The use of community relays also seems to be a gateway, to proceed 'door to door', in order to support awareness. Such a strategy would bear fruit if it were accompanied by the presence of service providers able to carry out the screening on site. This would be more advantageous, especially for women who find it impossible to come to the screening sites themselves.

Experience from resource-limited countries has demonstrated the importance of community involvement in increasing community uptake of UCC screening services. The significant importance of this community involvement has been widely supported by others. studies [14, 15, 16]. Another avenue to increase attendance is to involve religious leaders, heads of neighborhoods and sectors, as well as teachers, in raising awareness of the existence of local CECAP services.

The proportion of women whose VIA screening is positive (Table 2) showed that the age group from 30 to 49 years was the most represented, with 5.48%; followed by that of 25 to 29 years, for 4.18%. Compared to the sites, the positivity rate remains high. In our series, the lowest frequency was found at CMC Ratoma (2%) and the highest at CMC Coléah (15.38%), for one trimester. These rates were not in line with the international frequency standard, which is 5% to 10% [17, 18]. We also found a high frequency at the CHU Ignace Deen, going from 8.69% to 10.76%. This could be explained by the fact that women referred with a positive IVA test were retested and counted. These repeated screening results were recorded as if they were first diagnoses.

Elsewhere in Asia, studies have recorded positive VIA rates of 4.8%, 7% in Laos [19, 13]. This variability in positivity rates is likely related to provider training and experience.

4.2. Therapeutic Aspects

The proportion of women screened positive for VIA who received cryotherapy the same day in a single visit (table 3) was 62.5%. Note that eight (8) women were referred for suspicion of cancer. Yacouba et al. in Burkina Faso reported 65.9% of cryotherapy performed on the same day (10), in Ghana it was 70.2% [12].

The proportion in our study remains low, compared to that of Yacouba et al and Gaffin et al. This could be partly explained by provider training, availability of VIA inputs and cryotherapy; not to mention non-prohibitive fees that allow access to services (the program has negotiated a reduction of these fees to an appropriate level), and the short duration of the study.

The proportion of women screened positive at the first visit with cryotherapy postponed (texte 1), among the 40 positive IVA cases, is 37.5% (15 women out of 40), our results higher than those of Gaffin et al in Ghana 21% [12]. But lower than those of YM Kim et al. 74% in Indonesia [20]. The reasons for this postponement in our series are: the spouse's failure to inform them beforehand, the break in cryotherapy inputs in certain sites.

The reference for large lesion (texte 2), essentially concerned women in the age group of 30 to 49 years (0.53%) and over 49 years (9.09%). Since CCU is a cancer accessible to visual inspection and vaginal examination, it is often discovered at a late stage in elderly women, hence the need to focus on primary prevention.

5. Conclusion

Visual inspection with acetic acid is a simple test, requiring minimal infrastructure and expense, little provider training. The integration of VIA with cryotherapy at the primary care level in the communal medical centers of the city of Conakry, could constitute a feasible program for the prevention of cervical cancer in Guinea.

Competing Interests

The authors declare that they have no competing interests.

References

- [1] World Health Organization (WHO). Guidelines for screening and treatment of precancerous lesions in the prevention of cervical cancer: WHO guidelines. Geneva: WHO; 2013. http://www.who.int/reproductivehealth/publications/cancers/screening_and_treatment_of_precancerous_lesions/en Accessed March 27, 2018. [Google Scholar].
- [2] Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2018; 68 (6): 394-424.
- [3] World Health Organization, Agency for Cancer Research. Population Fact Sheets. GLOBOCAN 2012: Estimation of the number of cancers, its mortality and its prevalence in the world in 2012, website. http://globocan.iarc.fr/Pages/fact_sheets_population.aspx.
- [4] Leno DWA, Diallo FD, Camara AY, Magassouba M, Komano FD, Traore A, et al. Analysis of the results of cervical cancer screening campaigns in Conakry, Guinea. *Bull Cancer (Paris)* 2017; 104: 914-20. <https://doi.org/10.1016/j.bulcan.2017.09.012>.
- [5] Michener CM. Genomics and proteomics: Application of a new technology for the early detection and prevention of cancer. *Cancer Detect Prev.* 2002; 26 (4): 249-255. [http://dx.doi.org/10.1016/S0361-090X\(02\)00092-2](http://dx.doi.org/10.1016/S0361-090X(02)00092-2) [PubMed] [Google Scholar].
- [6] Blumenthal PD, Lauterbach M, Sellors JW, Sankaranarayanan R. Training for cervical cancer prevention programs in low-resource settings: Focus on visual inspection with acetic acid and cryotherapy. *Int J Gynaecol Obstet.* 2005; 89 (supplement 2): S30-S37. Cross Ref. Medical line.
- [7] Compaoré S, Ouedraogo CMR, Koanda S, Haynatzki G, Chamberlain RM, Soliman AS. Barriers to cervical cancer screening in Burkina Faso: education needs of patients and professionals. *J Cancer Educ.* 2016; 31 (4): 760-766.
- [8] Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of the global cancer burden in 2008: GLOBOCAN 2008. *Int J Cancer* 2010; 127: 2893-2917.
- [9] World Health Organization, Agency for Cancer Research. Population Fact Sheets. GLOBOCAN 2008: Estimation of the number of cancers, its mortality and its prevalence in the world in 2008, website. http://globocan.iarc.fr/Pages/fact_sheets_population.aspx.
- [10] Yacouba Ouédraogo, Gahan Furlane, b Timothée Fruhauf, c Ousmane Badolo, Moumouni Bonkoungou, Tsigue Pleah b et al Scaling up the single visit approach for cervical cancer prevention: successes and lessons from Burkina Faso Global health and science and practice 2018; 6 (2): 288-98.
- [11] Who. Guidelines for screening and treatment of precancerous lesions for cervical cancer prevention 2014 available at <https://apps.who.int/bitstream/handle/10665/112555/9789242548693-free.pdf>.
- [12] Gaffin, Sylvia Deganur, Robyn Lewis, Sydney Adodevoh, Cervical Cancer Prevention: Safety, Acceptability and Feasibility of a Single Visit Approach in Accra, Ghana Ghana cervicare Group DOI: <https://doi.org/10.1016/J.ajoc.2006.12.031>.

- [13] Mustafa RA, Santesso N, Khatib R, et al. Systematic reviews and meta-analyses of the accuracy of HPV testing, visual inspection with acetic acid, cytology and colposcopy. *Int J Gynaecol Obstet.* 2016; 132 (3): 259–265. 10.1016/d.ijgo.2015.07.024. [PubMed][CrossRef][Google Scholar].
- [14] Bruno Dujardin: a global approach to improve maternal health - ULB February.
- [15] Nene B, Jayant K, Arrossi Set al. Determinants of Women's Participation in Cervical Cancer Screening Trial, Maharashtra, India. *Orgue Santé Mondiale Bull.* 2007; 85: 264–272.
- [16] Agurto I, Arrossi S, White Set al. Involve the community in cervical cancer prevention programs. *Int J Gynaecol Obstet* 2005; 89 (Supplement 2): S38–S45.
- [17] World Health Organization (WHO); Pan American Health Organization. Surveillance of national cervical cancer prevention and control programs: quality control and quality assurance for programs based on acetic acid visual inspection (VIA). Geneva: WHO; 2013. http://apps.who.int/iris/bitstream/10665/79316/1/9789241505260_eng.pdf.
- [18] Nessa A, Hussain MA, Rahman JN, Rashid MH, Muwonge R, Sankaranarayanan R. Screening for cervical neoplasia in Bangladesh by visual inspection with acetic acid. *Int J Gynaecol Obstet.* 2010; 111: 115–118.
- [19] Phongsavan K, Phengsavanh A, Wahlström R, Marions L. Safety, feasibility and acceptability of acetic acid visual inspection and immediate cryotherapy treatment in rural Laos. *Int J Gynaecol Obstet.* 2011; 114: 268–272.
- [20] Young-Mi Kim¹, Francisca Maria Lambe, Djoko Soetikno, Megan Wyson¹, Ana Isabel Tergas², Presha Rajbhandari³, and al. Evaluation of a five –year cervical cancer prevention project in Indonesie : opportunity, problems and challenges *J. Obstet. Gynécol. Rés;* 39 (6): 1190–99.