

Epidemiological profile of elderly women with Cervical Cancer in the State of Pará/ Brazil in the historical series 2000-2017

Dandara de Fátima Ribeiro Bendelaque¹, Dayara de Nazaré Rosa de Carvalho², Daniele Melo Sardinha³, Rafael Everton Assunção Ribeiro da Costa⁴, Danylo Rafael Cardoso de Oliveira⁵, Susi dos Santos Barreto de Souza⁶, Kátia Silene Oliveira e Silva⁷, Thayná Gabriele Pinto Oliveira⁸, Joelma Sena Santos⁸, Andrea da Silva Pereira Amaral⁸, Lucrecia Aline Cabral Formigosa⁹, Joana Dulce Cabral Formigosa¹⁰, Ewellyn Natália Assunção Ferreira¹¹, Paula Sousa da Silva Rocha¹², Viviane Ferraz Ferreira de Aguiar¹³

¹ Nursing Academic, Paraense Faculty of Teaching (FAPEN). Orcid: <https://orcid.org/0000-0002-5580-284X>. Belém, Pará, Brazil

² Master's Student in Education and Nursing Technologies for Health Care of Individuals and Social Groups at the University of the State of Pará (PPGENF/UEPA). Orcid: <https://orcid.org/0000-0001-8569-3392>. Belém, Pará, Brazil.

³ Master Student in Epidemiology and health Surveillance by Institute Evandro Chagas (PPGEVS/IEC/SVS/MS). Orcid: <http://orcid.org/0000-0002-2650-2354>. Ananindeua, Pará, Brazil.

⁴ Medical Academic, State University of Piauí (UESPI) Orcid: <https://orcid.org/0000-0002-0798-890X>. Teresina, Piauí, Brazil.

⁵ Master's Student in Nursing in the Post-graduate program in Health Management (FUNIBER). Orcid: <https://orcid.org/0000-0003-1519-3418>. Ananindeua, Pará, Brazil.

⁶ Master in Oncology and Medical Sciences from the Federal University of Pará (UFPA). Orcid: <https://orcid.org/0000-0002-4138-7147>. Belém, Pará, Brazil.

⁷ Nurse, Collective Health Specialist, Federal University of Pará (UFPA). Orcid: <http://https://orcid.org/0000-0001-6790-0394>. Ananindeua, Pará, Brazil.

⁸ Nurse, University of the Amazon (UNAMA). Orcid: <https://orcid.org/0000-0002-0547-1843>; <https://orcid.org/0000-0002-9168-8394>; <https://orcid.org/0000-0003-3217-0779>. Belém, Pará, Brazil.

⁹ Nurse, Public Health Specialist. Orcid: <https://orcid.org/0000-0003-4245-672X>. Belém, Pará, Brazil.

¹⁰ Master in Collective Health from the Federal University of Pará (UFPA). Orcid: <https://orcid.org/0000-0003-1871-2404>. Belém, Pará, Brazil.

¹¹ Nursing Academic, University of the Amazon (UNAMA). Orcid: <https://orcid.org/0000-0002-7440-4257>. Belém, Pará, Brazil.

¹² PhD student in Parasitic Biology in the Amazon by the University of Pará and Institute Evandro Chagas (PPGBPA/UEPA/IEC). Orcid: <https://orcid.org/0000-0002-0453-1314>. Belém, Pará, Brazil.

¹³ PhD student at the Graduate Program in Tropical Diseases, Nucleus of Tropical Medicine/Federal University of Pará (PPGDT/NMT/UFPA). Professor at the School of Nursing/Federal University of Pará. Orcid: <https://orcid.org/0000-0003-3025-1065>. Belém, Pará, Brazil.

Corresponding Author: Dandara de Fátima Ribeiro Bendelaque

Abstract— Introduction: Cervical Cancer (CC) ranks third among the most common malignant neoplasms among Brazilian women, representing a total of 15% of female cancers. **OBJECTIVE:** To identify the epidemiological profile of elderly women with Cervical Cancer in the historical series 2000-2017 treated in specialized public hospitals in Pará/Brazil. **Methodology:** A retrospective descriptive study with a quantitative approach, carried out in January 2020 with information from secondary data from the Hospital Cancer Registry Computerization System (SisHCR) regarding mortality from CC. From the data collected, a

descriptive analysis of the population under study was performed. From the data collected, a descriptive analysis of the population under study was performed. RESULTS: A total of 1,980 cases of cervical cancer were found in the state of Pará in the historical series 2000 - 2017, mainly between the ages of 60 and 69, of the ignored/white race, married, with incomplete fundamental level and SUS referral origin. As for the factors associated with cervical cancer, 36% of the cases reported smoking, 76% of the cases had no information about alcoholism, and 64% of the cases had no information about their family history of cancer. CONCLUSION: It was noted that despite the campaigns that recommend screening until the age of 64, this age group presents resistance regarding the performance of the cytopathological examination and consequently a high number of cases, being necessary actions that clarify doubts and reduce taboos we return to the subject.

Keywords— *Epidemiological profile; Cervical cancer; Aged.*

I. INTRODUCTION

With the aging of the Brazilian population, changes in the pattern of morbidity and mortality can be noted, increasing the number of Chronic Non Transmissible Diseases (CNTD), such as neoplasms, which require long periods of supervision, observation or care (Szerwieski, 2016).

Cancer is one of the pathologies that most affects the elderly due to the longer exposure to risk factors. It is considered a public health problem because it has a high level of incidence, prevalence, mortality, higher hospital expenditure, changes in the quality of life of the elderly, as well as increased demands for assistance from health professionals (Souza et al., 2018).

Among the most common malignant neoplasms in Brazil is Cervical Cancer (CC), representing a total of 15% of female cancers, mostly from the age of 30, increasing its risk rapidly with the aging process. It develops from precursor lesions, which have the potential for progression if not detected and treated early (Speck et al., 2015).

In the northern region, the CC ranks first as the most incident neoplasm since 2010, in which it had an estimated 23/100,000 inhabitants, and for the year 2019 25.62/100,000 are expected, being the only region in which Breast Cancer is not prevalent (M. de O. Santos, 2018).

Two methods of prevention of this type of cancer are carried out: primary prevention, through sexual practices protected by barrier and immunization methods; and secondary prevention, which occurs by identifying lesions early, through colpocytological examination, also known as Pap smear (Audi, Santiago, Andrade, & Francisco, 2016; INCA, 2018; B. O. Leite et al., 2019).

In Brazil, the Ministry of Health prioritizes the performance of Cervical Cancer Prevention (CCP) in women between 25 and 64 years of age, with active sexual

life, however, it is noted that women aged 60 and over have little attendance for this examination (INCA, 2016).

In this perspective, among the main causes of resistance of older women to perform the cytopathological examination, shame, religion, lack of knowledge of the examination and where to perform it, partners who do not allow women to attend to perform the preventive examination and other barriers such as fear of being positive (Feitosa et al., 2017).

Despite the longevity of women and the advances in medicine that have provided better quality and increased resources for maintaining sexual life, the prejudices and taboos regarding this population, associated with the difficulty of implementing public policies and the lack of incentive for practices, contribute to the development of cervical cancer (K. N. S. Leite et al., 2018).

Older women are more likely to develop diseases of different kinds, including sexuality-related neoplasms, which represent a significant cause of morbidity conditions and mortality determinants in the elderly (Silveira et al., 2016).

Given the situation observed, this study sought to identify the epidemiological profile of elderly women with Cervical Cancer in the historical series 2000-2017 attended in specialized public hospitals in Pará.

II. METODOLOGY

This is an epidemiological, descriptive, retrospective study with a quantitative approach. The study was conducted in January 2020 with information from the Hospital's Computerized Cancer Registry System (SisHCR) on the epidemiological profile of elderly women with cervical cancer in the state of Pará from 2000 to 2017. The data collected are available for public consultation at the Hospital Cancer Registry Integrator (HCR Integrator)

at <https://irhc.inca.gov.br>. The HCR is a system of the National Cancer Institute (INCA) that allows the tabulation of data of patients with confirmed cancer diagnosis, related to the HCR of all Brazil.

Data from 1,980 cases of cervical cancer in the state of Pará from 2000 to 2017 were collected from the HCR integrator. For this study the following Sociodemographic variables were used (total number of cases; age range; race; education; marital status and origin of referral); epidemiological variables (location of the tumor; basis of diagnosis; occurrence of more than 1 tumor and laterality) and Associated factors (alcoholism, smoking and history of cancer in the family).

From the data collected, a descriptive analysis of the population under study was performed; the data are

Table 1: Distribution of the total number of CC cases in elderly women in Pará, between the years 2000-2017.

YEAR	TOTAL	%
2000	27	1%
2001	98	5%
2002	118	6%
2003	102	5%
2004	126	6%
2005	158	8%
2006	147	7%
2007	124	6%
2008	136	7%
2009	110	6%
2010	130	7%
2011	119	6%
2012	114	6%
2013	127	6%
2014	118	6%
2015	112	6%
2016	93	5%
2017	21	1%
TOTAL	1.980	100%

Source: HCR Integrator, 2020.

Regarding the distribution of the number of cases of elderly women with CC per Hospital Unit, the Hospital Ophir Loyola (located in the city of Belém - Pará) occupies the first position with 1,847 cases (93%), followed by the Hospital Regional do Baixo Amazonas Dr. Waldemar

arranged in graphs and tables by means of relative and median frequency and standard deviation of the selected variables. Because the data used were open to the public and available for consultation through the INCA website, there was no need for approval in the Research Ethics Committee.

III. RESULTS

In the historical series 2000-2017 a total of 1,980 cases of cervical cancer were found in the state of Pará, with the highest number of cases occurring in 2005 with 158 cases, corresponding to 8% of the total. Table 1 shows the total number of CC cases in elderly women in Pará between 2000 - 2017.

Penna (located in the city of Santarém - Pará) with 127 cases (6%) and the Hospital Universitário João de Barros Barreto with 6 cases (1%).

It was observed the predominance of elderly women between 60 and 69 years old, with 1,206 cases

(61%), 1,709 present ignored/white race (86%), 945 (48%) have only the incomplete fundamental level. Regarding marital status, it was observed that 37% of the patients

were married and 1,333 (67%) of the cases originated from the Single Health System (SHS). Table 2 expresses the characterization of the sociodemographic profile.

Table 2: Distribution of the sociodemographic profile of elderly women with CC in Pará, between the years 2000-2017.

Variables	Total n=1.980	
	n°	%
Age group		
60 – 69	1.206	61%
70 – 79	565	29%
80 or more	209	11%
Race		
Ignored Race	1.179	86%
White	111	6%
Black	41	2%
Yellow	5	1%
Pardo	631	32%
Indigenous	13	1%
Schooling		
Ignored	119	6%
Illiterate	672	34%
Incomplete Elementary School	945	48%
Complete Elementary School	152	8%
Full High School	82	4%
Incomplete Higher Education	2	0%
Complete Higher Education	8	0%
Marital State		
Single	324	16%
Married	736	37%
Separate	108	5%
Widower	722	36%
Origin of Routing		
Unified Health System	1.333	67%
Private Network	607	31%
Other	40	2%

Source: HCR Integrator, 2020.

Regarding the epidemiological profile, it was noticeable that the primary location occurred in the cervix with 1,149 (58%). Regarding the diagnosis, 1,942 (98%)

was made through the histology of the primary tumor, with the occurrence of more than 1 tumor in 1,958 (99%) of the cases. Regarding laterality, in 1,963 (99%) of the cases the

most prevalent staging was level 2 in 647 (33%) of the cases, and the staging of the disease at the end of 1 year

was considerable in 933 (47%) of the cases as stable. For better visualization, the data are shown in Table 3.

Table 3: Epidemiological profile of elderly women with CC in Pará, between 2000-2017.

Variables	Total n= 1.980	
	n°%	
Detailed Location		
Endocervix	224	11%
Exocérvix	403	20%
Overlapping lesion of the cervix	114	1%
Cervix	1.149	58%
Basis of Diagnosis		
Cytology	7	0%
Clinic	23	1%
Image exam	2	0%
Metastasis histology	4	0%
Primary tumor histology	1.942	98%
Tumor markers	1	0%
Clinical research	1	0%
Occurrence of More than one Tumor		
Yes	19	1%
Not	1.958	99%
Doubtful	3	0%
Laterality		
Bilateral	2	0%
Right	10	1%
Left	5	0%
Does not apply	1.963	99%
Stay		
Level 1	232	12%
Level 2	647	33%
Level 3	445	22%
Level 4	54	3%
Level 8	512	26%
Disease Stay at the End of Year 1		
Disease in progression	267	13%
Stable disease	933	47%
Out of therapeutic possibility	76	4%
Partial remission	142	7%

Complete remission	190	10%
Does not apply	250	13%
Death	122	6%

Source: HCR Integrator, 2020.

As for the factors associated with cervical cancer in elderly women in Pará, it was observed that 712 (36%) were smokers. Regarding alcoholism, it was found that in 1,510 (76%) of the cases there was no information or no

evaluation and 1,264 (64%) of the cases had no information about the family history of cancer. The associated factors are expressed in table 4, below.

Table 4: Factors associated with the CC of elderly women in Pará, 2000-2017.

Variables	Total n=1.980	
	n°	%
Smoking		
Yes	712	36%
Not	695	35%
Former smoker	359	18%
No information or unevaluated	214	11%
Etilism		
Yes	62	3%
Not	313	16%
Former-Etilist	97	5%
No information or unevaluated	1.510	76%
Family History of Cancer		
Yes	227	11%
Not	491	25%
No information	1.264	64%

Source: HCR Integrator, 2020.

IV. DISCUSSION

A total of 1,980 cases of cervical cancer were obtained in the state of Pará in the historical series 2000 - 2017. The highest number of cases was found in 2005 with 158 cases (8%), a decrease in the following years and reaching a total of 21 cases (1%) in 2017. Despite the significant decrease in the number of cases of CC in Pará, the state still faces the predominance of cases of incidence and mortality and by neoplasia.

According to data collected from the High Complexity Oncology Units of Hospital Ophir Loyola (HOL), Hospital Regional do Baixo Amazonas (HRBA) and Hospital Universitário João de Barros Barreto (HUJBB), from 2009 to 2016, cervical cancer was the most prevalent in Pará with 2,537 cases, followed by breast

cancer with 2,206 cases. In terms of deaths, Pará registered 350 deaths in 2016, falling to 321 cases in 2018 (OLIVEIRA, 2019; SESPA, 2019).

Sociodemographic variables presented the prevalence of the age group between 60 and 69 years, a similar fact was found in a study carried out in Maranhão identifying that the age group between 65 and 70 years was more prevalent in relation to Cervical Cancer (Medeiros-Verzaro & De Lima Sardinha, 2018), em outro found that 0.185% of cases of CC in Bahia in the period 2008 to 2013, were in the age group above 64 years (Freire, Brito, & Campo, 2016).

The Ministry of Health recommends that the cytopathological examination for cervical cancer, in the 25 to 64 age group, be discontinued after this period in the

case of two consecutive negative examinations in the last five years (Brasil, 2013). Despite this recommendation, it is observed in this study that the number of cases between 60 - 64 years of age is still high, as well as in the 70 -79 age group with 565 cases (29%) and 80 or more with 209 cases (11%).

Studies indicate that most women who have passed the age limit recommended by the Ministry of Health choose not to perform this examination anymore, due to factors such as little knowledge, delay or lack of delivery of results, lack of sexual activity of some elderly women, non-acceptance of their spouses, shame and fear, do not present any symptoms consistent with the genitals until the proximity of death. As a result, cervical cancer can be diagnosed in more advanced stages (R. de F. A. Santos et al., 2015; Tavares, Scheid, & Braz, 2018).

The shame may be associated with other experiences that these older women may have experienced negatively in the health services. Sometimes these do not offer privacy to users. However, there are also difficulties related to the professionals themselves who are not aware of providing adequate care for the elderly (B. O. Leite et al., 2019).

In a study by Thuler, Aguiar, & Bergmann, (2014), which analyzed the determinants of advanced stage diagnosis in women with cervical cancer in Brazil, established that women aged 30 to 39 may have a 10% greater chance of developing advanced disease, gradually increasing up to 2 times for the age group of 60 or older, concluding that age is one of the main predictors of moderate and advanced disease.

Coelho, Verde, Oliveira, & Soares, (2014), analyzing the epidemiological profile of cytopathological exams in the city of Floriano, Piauí, found that the age group that performed the least tests was above 61 years, which obtained the percentage of 2.84% in total. This fact reinforces the resistance of the elderly to perform the cytopathological exam, thus causing deficiency in screening and decrease in the effectiveness of treatment, which often begins in advanced stages.

As for race, 86% of the cases presented an ignored/white race, contrasting the studies of Silva, Silva, Peres, & Oliveira, (2018) and Ribeiro, Araújo, Campelo, Figueiredo, & Da Silva, (2016), who presented the predominance of women with a non-white race with a total of 91.75% and 82.1%, respectively. According to the latest census conducted by the Brazilian Institute of Geography and Statistics in 2010, the state of Pará showed predominance of the brown race for the general population

of the state of Pará with 78.6% in total, which may be related to the miscegenation between whites and Indians in the Amazon region (IBGE, 2010).

Regarding schooling, the prevalence of older women with incomplete primary education was identified at 48%, a fact that represents less than eight years of study, corroborating the study conducted by Favaro, Durant, Pattera, Panobianco, & Gozzo, (2019), who found that of the total of 906 women, 41.2% had incomplete primary education.

Women with low educational levels have less access to health information, which includes guidelines on periodic preventive testing, influencing the non-performance of the tests, which in turn increases the risk of non-detection and treatment of precursor lesions and their progression to cancer (D. S. M. da Silva et al., 2014).

Regarding the marital status, 37% of the total were married, a fact that was also present in the study conducted by Ribeiro, Silva, Campelo, Santos, & Coêlho, (2014) and Renna & Silva, (2018), with 54.5% and 45.16%, respectively. It is expected that married elderly women or in an unstable union have a lower prevalence of exposure to HPV infection and CC due to the lower number of sexual partners compared to single women, however, factors such as the standard of safety and trust with their partners lead to low adherence to appropriate means of prevention, causing the higher chance of exposure (Gaspar, Quintana, Reis, & Gir, 2015).

Regarding the place of origin of referral, 67% of the registered cases originated from the single health system, similar to the study conducted by , which when (Pontes, 2016) analyzing the genotypes of HPV and factors associated with the diagnosis of early-stage cervical cancer in women attended at the reference health unit in Pará, found that 67.2% of the registered cases were consulted and referred by the single health system.

The epidemiological variables resulted in a prevalence of the cervix as the primary location, with diagnosis through the histology of the primary tumor and occurrence of more than 1 tumor. Level 2 staging was the most prevalent, with a total of 33%, as was the study by Ribeiro et al., (2016) and Pontes, (2016), which presented 35.4% and 45.5% respectively.

The factors associated with CC were observed the prevalence of the smoking variable with 33%, for alcoholism and family history of cancer, the option without information obtained prevalence with 76% and 54% respectively. Medeiros-Verzaro & De Lima Sardinha, (2018) presented similar results regarding family history,

in which 49.5% of the cases had no information. Koller, Lima, Cruz, Peixoto, & Novak, (2016), in a study that evaluated the epidemiology of Cervical Cancer in Paraná, found that out of a total of 12,574 cases, 46.8% had a history of alcoholism and 59.7% of smoking.

According to the Ministry of Health, smoking increases the risk of developing CC, due to its implication as a facilitator of transformation into cancer by reducing local immunity and emphasizes that the control of this habit can reduce the risks related to this neoplasm, being one of the priorities of the National Policy for Health Promotion (Brasil, 2013).

V. CONCLUSION

A total of 1,980 cases of cervical cancer were found in the state of Pará in the historical series 2000 - 2017, with a predominance of the 60 to 69 age group, race ignored/white, incomplete fundamental level and married status.

It was noted that despite the campaigns advocating screening until the age of 64, this age group presents resistance as regards the performance of the cytopathological examination, being necessary the actions that promote the clarification of doubts and contribute to the breaking of taboos of women coming from a generation and a patriarchal society and with macho customs. In view of this, the realization of educational activities acts as a fundamental tool for the early detection and prevention of cancer, since it presents itself as a process capable of transforming "information into understanding".

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