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# INCIDENCE OF MALIGNANT NEOPLASMS OF THE CERVICAL IN BRAZILIAN WOMEN

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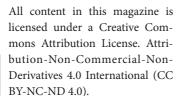
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Abstract: Introduction: The cervix is located between the bottom of the vagina and the uterine cavity. Cervical cancer, a malignant neoplasm, is one of the most common forms of cancer in Brazil. This chronic condition abnormal presents symptoms such as menstruation, pelvic pain after sexual intercourse and vaginal bleeding, among others. To prevent this neoplasia, methods such as vaccination against HPV (human papilloma virus), the use of condoms during sexual intercourse and cervical cytology tests are essential. Objective: The purpose of this article is to investigate the incidence of cervical malignancy among Brazilian women. Methods: this is an observational ecological study, with data obtained by the Information Technology Service of the Unified Health System, DATASUS, and the National Cancer Institute. Results: Cervical cancer is the second most common in the North (20.48/100 thousand) and Northeast (17.59/100 thousand) regions and the third in the Central-West (16.66/100 thousand). In the South region (14.55/100 thousand) it occupies the fourth position and, in the Southeast region (12.93/100 thousand), the position. Furthermore, hospitalization rates due to this pathology fell in the last quarter of 2022, with in October of this year there were 6,621 hospitalizations and in December of the same year there were 2,198 hospitalizations. It is worth highlighting that the southeast region had 2,597 cases of hospitalizations due to this disease, which is the highest rate in Brazil. Conclusion: Therefore, it can be concluded that the percentage of hospitalizations for cervical cancer has suffered a significant reduction. However, this neoplasm is still present in Brazilian society due to the lack of adherence to routine exams that must be carried out on women, such as preventive exams, in addition to the lack of awareness about the importance of using condoms during sexual intercourse.

**Keywords**: Brazilian, Cervix, Women, Neoplasia

### INTRODUCTION

Cervical neoplasia is the third most common cancer among Brazilian women when excluding non-melanoma skin tumors. Nationally, there will be an estimated 17,010 new cases between 2023 and 2025. In a regional analysis, it is possible to observe that this neoplasm is the second most common in the north and northeast regions. (INCA, 2022).

Cervical cancer is rare in women before the age of 30, gradually increasing after the age of 40. This fact justifies the age recommended for screening for this neoplasm by the Ministry of Health. Screening is done through cytopathological examination of the cervix for women between 25 and 64 years old, once every three years, if two consecutive annual examinations are normal.

During the Covid-19 pandemic (2019 to 2021), there was a drop in the number of cervical cancer screening tests. In Brazil, in 2018, 8,690,001 tests were carried out, in 2020 there was a sharp drop and 4,824,415 were carried out. Fortunately, in the North and Northeast regions, post-pandemic values managed to surpass pre-pandemic values. In 2018, for example, 521,961 exams were carried out in the northern region, while in 2022 this number increased to 640,991. (Brazil, 2023)

Several reasons lead women to never have undergone the preventive exam, among which the following stand out in descending order: they don't think it's necessary, they weren't instructed to take the exam, they are ashamed, they've never had sexual intercourse, another, they had surgery to remove the uterus, has financial difficulties, is scheduled, but has not completed it. (IBGE, 2019).

In 2021 in Brazil, the mortality rate from cervical cancer was 4.51 per 100 thousand

women. Unfortunately, this rate is leveraged in the North and Northeast regions when analyzing the regions of the country, reaching 9.07 deaths per 100 thousand women in the first and 5.61 per 100 thousand women in the second. (INCA, 2023).

It is worth mentioning that in 2022 this pathology was responsible for the hospitalization of 1,658 black women and 9,247 white women. In the same year there were 1589 hospitalizations due to this disease in females aged 20 to 29 years.

This fact can be justified by two main reasons: lack of effective screening for diagnosis in the early stages of the disease and difficulty in initiating appropriate treatment.

### **METHOD**

This article is an ecological observational study. For this, the Information Technology Service of the Unified Health System, DATASUS, and the National Cancer Institute were used as databases, from the period 2018 to 2022. Pre-pandemic and post-pandemic data were taken into account for a better analysis of the insight into the current Brazilian scenario regarding the diagnosis, treatment and mortality of cervical cancer in the country. The study considered the female population. The study's coverage area was the entire national territory, which has an estimated population of approximately 210 million inhabitants.

Regarding the variables, the study considered the following: year of death (from 2019 to October 2023); number of hospitalizations (in 2022); geographic location (Federative Units); age group (20 to 69 years old); race/color (White and Black)

The outcomes of the present study were the following indicators: 1) proportion of women who underwent cytopathological examination in recent years. 2) proportion of women who never took the exam.

# **RESULTS AND DISCUSSION**

The cervix is located between the bottom of the vagina and the uterine cavity. Malignant neoplasia of the cervix, known as cervical cancer, is one of the most common tumors in Brazil.

This neoplasm is a chronic disease whose symptoms are: abnormal menstruation, pelvic pain after sexual intercourse, vaginal bleeding, among others. The vaccine against HPV (human papilloma virus), the use of condoms during sexual intercourse and cervical cytology are methods of preventing this neoplasm.

Cervical cancer is the second most common in the North (20.48/100 thousand) and Northeast (17.59/100 thousand) regions and the third in the Central-West (16.66/100 thousand). In the South region (14.55/100 thousand) it occupies the fourth position and, in the Southeast region (12.93/100 thousand), the fifth position. Furthermore, hospitalization rates due to this pathology fell in the last quarter of 2022, with in October of this year there were 6,621 hospitalizations and in December of the same year there were 2,198 hospitalizations. It is worth highlighting that the southeast region had 2,597 cases of hospitalizations due to this disease, which is the highest rate in Brazil. (BRAZIL, 2022)

It is worth mentioning that in 2022 this pathology was responsible for the hospitalization of 1,658 black women and 9,247 white women. In the same year there were 1589 hospitalizations due to this disease in females aged 20 to 29 years. Furthermore, in the period from 2019 to October 2023 there were 13,124 deaths in Brazil caused by this neoplasm, with the largest number of deaths occurring in the Southeast region with 5,326 cases. (BRAZIL, 2022)

Cervical cancer is caused by the human papilloma virus (HPV), infection with this virus is considered a sexually transmitted

infection. According to the Ministry of Health, one in ten people are infected with the virus. To try to combat this pathology, the HPV vaccine was created as a prophylactic measure for the disease. In Brazil, the vaccines used are bivalent and quadrivalent. The main objective of these vaccines is to combat mainly HPV16 and HPV18, which are responsible for around 70% of cases of this neoplasia. (Zardo et al.; 2014)

The HPV vaccine has been offered by the Unified Health System since 2014. It is currently offered to girls and boys between 9 and 14 years old. The vaccine is applied in more than 120 countries and its effectiveness has already been proven in those that have immunized their population for the longest time.

In Brazil, it will only be possible to analyze the effectiveness of the vaccine in a few years, given that the first girls immunized in 2014 are currently around 23 years old (2023), and the incidence of cervical cancer increases from the age of 30. (Zardo et al., 2014)

Unfortunately, there is a drop in vaccination coverage against HPV, in 2019 around 87% of Brazilian girls between 11 and 14 years old were vaccinated, in 2022 this number fell to around 75%. This fact makes it difficult for Brazil to meet one of the goals it set with the World Health Organization in 2020, which is to immunize 90% of girls up to the age of 15. (Brazil, 2023)

In 2020, the WHO, with the support of the Pan American Health Organization (PAHO) and countries, around 194 countries, developed a strategy to eliminate cervical cancer, but to do so it would be necessary for everyone to meet targets by 2030, how to ensure that 90% of women were immunized with both doses of the HPV vaccine by the age of 15. However, a study carried out by the Cancer Foundation revealed a problem that occurs in all Brazilian capitals, failing to meet

this target, which is the drop in vaccination coverage and if it continues like this, by 2030 Brazil will not reach the target necessary to eradicate this disease.

With the WHO strategy, it was predicted that by 2050, if everything went as planned, 5 million lives would be saved. (OPAS, 2020) (GANDRA et al., 2023)

Another survey carried out by the Cancer Foundation shows a drop in immunization between the 1st and 2nd dose and as a result, only 57% of women between 9 and 14 years old were immunized with both doses. The first dose, which is indicated from the age of 9, was approved by 76% of the female public and the second dose, recommended two months after the first, between 50% and 62% according to the study. (MAGGIONI et al., 2023)

## **CONCLUSION**

Therefore, in Brazil, the occurrence of this type of cancer remains high compared to other countries, this is due to the early onset of sexual activity, the diversity of partners, smoking, poor intimate hygiene and often the lack of information, scenarios that are still present in the daily lives of Brazilian women.

This situation is due to the lack of public policies aimed at women's health. This problem is reflected in the number of women who have never had a Pap smear, around 20% of Brazilian women have never had a Pap smear.

Vaccination against HPV has been shown to be effective in preventing infection with certain types of the virus associated with cervical cancer. Additionally, early detection procedures such as Pap smears and HPV tests play a crucial role in identifying precancers before they turn into cancer.

It is crucial to emphasize the importance of awareness, sexual health education, access to health services, and implementation of comprehensive vaccination and screening programs to reduce the incidence of cervical malignancy. It is recommended that women follow screening guidelines and protocols recommended by healthcare professionals in their respective regions.

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