Oncology 2025
The Cancer Control Challenge:
Better Understanding It to Better Face It

EPIDEMIOLOGICAL ANALYSIS OF THE RELATIONSHIP BETWEEN THE PERFORMANCE OF CERVICAL CYTOLOGY TESTS AND THE MORTALITY RATE FROM MALIGNANT CERVICAL NEOPLASMS

Matheus Valente dos Santos[1], Elaine Rodrigues Pinheiro[2], Fabiana Costa Cardoso[3], Giovanna Coelho Sampaio[4], Isadora Helena Freitas da Silva[5], Jaynara da Silva Esteves[6], João Lucas Moita de Sousa[7], João Vitor dos Santos Benjamin[8], Julle Kele Pereira Gonçalves[9], Stellanny Cilene Rodrigues Castro[10].

[1]Universidade do Estado do Pará (UEPA)
[2]Centro Universitário Metropolitano da Amazônia (UNIFAMAZ)
[3]Universidade Federal do Pará (UFPA)
[4]Universidade Federal do Pará (UFPA)
[5]Centro Universitário Metropolitano da Amazônia (UNIFAMAZ)
[6]Universidade Federal do Pará (UFPA)
[7]Universade do Estado do Pará (UEPA)
[8]Universidade do Estado do Pará (UEPA)
[9]Universidade Federal do Pará (UFPA)
[10]Universidade Federal do Pará (UFPA)

Introduction: When quality cytology screening is implemented in health networks, there is a reduction in the incidence of cervical cancer. However, due to the socio-economic differences between regions in Brazil, even though there is a satisfactory supply of screening for the disease, a proportion of avoidable deaths from cervical cancer still persists. **Objectives:** Describe the scenario of the pathology in question through the correlation between its screening and the level of lethality. **Methods:** This is an ecological and descriptive time series study, which analyzed the relationship between malignant cervical cancer and its mortality rate by federative unit of notification, in the period from 2020 to 2024. The study used secondary data from public and recognized sources, integrating epidemiological information and SUS hospital mortality records. **Results:** Between 2020 and 2024, 32,768.745 cervical cytology tests were carried out, of which 32,085.288 were screened and around 26,918.387 had some abnormality in the result. Race/color was self-declared by a large proportion of the women (13,393.724), and the age group between 40 and 44 was the one with the largest number of tests (4,028.840). The most frequent histopathological findings were low-grade lesions (CIN 1) or lesions due to HPV infection (229,510), with the state of Minas Gerais having the highest number of cases of this nature (31,549), while the least frequent was invasive squamous cell carcinoma (11,245), with the state of Pará registering the highest number of cases (569). **Conclusion:** The study showed the importance of cytological screening

in the early detection of cervical cancer, with a predominance of low-grade lesions among the findings. The persistence of advanced cases, such as invasive squamous cell carcinoma, especially in some regions, points to inequalities in access to diagnosis and timely treatment. The findings reinforce the importance of the continuity and qualification of public prevention policies, with a special focus on the most vulnerable populations and in states with a higher incidence of serious lesions.

Keywords: Cancer of cervix; death rate; epidemiology.