

## CERVICAL CYTOPATHOLOGICAL EXAMINATION: AGE RANGE AND RESULTS FOUND

### EXAME CITOPATOLÓGICO DO COLO DO ÚTERO: FAIXA ETÁRIA E RESULTADOS ENCONTRADOS

### EXAMEN CITOLÓGICO DEL CUELLO UTERINO: FRANJA ETARIA Y RESULTADOS OBTENIDOS

Anne Gabriella Pacito Monteiro<sup>1</sup>, Heloyse Nathelly Rodrigues Dutra<sup>2</sup>, Tatiane Silva Castellini<sup>3</sup>, Juliana da Silva Vigo<sup>4</sup>, Daiane Cortêz Raimondi<sup>5</sup>

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#### ABSTRACT

**Objective:** To identify the age and results of cervical cytopathological examinations of women treated at a health unit. **Methodology:** This is a retrospective documentary research carried out through the exam registration books from 2016 to 2018, where age and test results were collected. **Results:** It can be seen that most of the tests obtained normal results, followed by inflammation without etiologic agent and *Gardnerella vaginalis*. Only 0.7% of women had low- and high-grade intraepithelial lesions, being more frequent among women under the age of 25 years. Regarding age, the highest adherence was among women aged 50 to 59 years. **Conclusions:** Among the age range recommended for the exam, it can be seen that most women obtained normal results, thus reinforcing the importance of the exam in the prevention and early detection of cervical cancer.

**Descriptors:** Papanicolaou Test. Uterine Cervical Neoplasms. Outcome Assessment, Health Care. Nursing.

<sup>1</sup>UNIPAR - University of Paraná. Student of the 5th year of Nursing at UNIPAR - Universidade Paranaense. Participant of the Scientific Initiation Program (PIC).

<sup>2</sup>Paraná University. Student of the 5th year of Nursing at UNIPAR - Universidade Paranaense.

<sup>3</sup>UNIPAR - University of Paraná. Student of the 5th year of Nursing at UNIPAR - Universidade Paranaense.

<sup>4</sup>UNIPAR - University of Paraná. Student of the 5th year of Nursing at UNIPAR - Universidade Paranaense.

<sup>5</sup>UNIPAR - University of Paraná. Master in Nursing from the State University of Maringá (UEM). Specialist in Health Auditing by Faculdade Ingá. Specialist in Higher Education Teaching by Unicesumar. Graduated in Nursing from UNIPAR, laureate best student of the Nursing Course at Universidade Paranaense. She was assistant professor (Full Time - 2013 - 2015) of the Nursing, Pharmacy and Physiotherapy Courses; Coordinator of the Undergraduate Nursing Course at Universidade Paranaense - UNIPAR - Toledo University Unit -PR (2013-01/2015). Professor of the Nursing and Medicine Courses at Unipar - Umuarama (2019). She is currently a Professor and Coordinator of the Nursing Course at UNIPAR and Pedagogical Manager of Specialization Courses in the Health and Sports Area in the Distance Learning modality - EAD at UNIPAR - University Unit of Umuarama - PR. She works in the area of primary health care and women's health. Nurse of the Family Health Strategy in the Municipality of Umuarama - PR

## RESUMO

**Objetivo:** Identificar a idade e os resultados dos exames citopatológicos do colo do útero de mulheres atendidas em uma unidade de saúde. **Metodologia:** Trata-se de uma pesquisa retrospectiva documental realizada através dos livros de registro do exame de 2016 a 2018, onde foram coletados a idade e os resultados dos exames. **Resultados:** Pode-se constatar que a maioria dos exames obtiveram resultados normais, seguidos de inflamação sem agente etiológico e *Gardnerella vaginalis*. Apenas 0,7% das mulheres apresentaram lesões intraepiteliais, de baixo e alto grau, sendo mais frequente entre mulheres com idade inferior a 25 anos. Em relação à idade, a maior adesão foi entre as mulheres de 50 a 59 anos. **Conclusões:** Dentre a faixa etária recomendada para o exame, pode-se constatar que a maioria das mulheres obtiveram resultados normais, reforçando assim a importância do exame na prevenção e detecção precoce do câncer do colo do útero.

**Descritores:** Teste de Papanicolaou. Neoplasias do Colo do Útero. Avaliação de Resultados em Cuidados de Saúde. Enfermagem.

## RESUMEN

**Objetivo:** Identificar la edad y los resultados de los exámenes citológicos del cuello uterino de mujeres tratadas en una unidad de salud. **Metodología:** Investigación retrospectiva documental realizada a través de los libros de registro de exámenes de 2016 a 2018, en el que se recopilaron la edad y el resultado de las pruebas. **Resultados:** Se puede observar que la mayoría de los exámenes obtuvieron resultados normales, seguidos de inflamación sin agente etiológico y *Gardnerella vaginalis*. Solo el 0,7% de las mujeres tenía lesiones intraepiteliales de bajo y alto grado y eran más frecuente en las mujeres menores de 25 años. Se registró una mayor adhesión en mujeres de 50 a 59 años. **Conclusiones:** En el rango etario recomendado para el examen, se puede observar que la mayoría de las mujeres obtuvo resultados normales, esto refuerza la importancia que tiene el examen en la prevención y detección temprana del cáncer de cuello de útero.

**Descriptor:** Prueba de Papanicolaou. Neoplasias de Cuello Uterino. Evaluación de Resultado en la Atención de la Salud. Enfermería.

## INTRODUCTION

Cervical cancer is a serious public health problem in developing countries. In Brazil, it is the third most frequent tumor among women, behind only breast and colorectal cancer, constituting the fourth cause of death in the female population.<sup>1</sup>

According to the Instituto Nacional de Câncer José Alencar Gomes da Silva – INCA<sup>1</sup>, there are an estimated 16,590 new cases of cervical cancer in Brazil for 2020,

thus highlighting the severity of the disease, since in 2017 it was responsible for 10,326 deaths of Brazilian women, in which 6,385 were directly related to the uterine cervix.

Cervical cancer can cause vaginal bleeding, abnormal secretion and abdominal pain, related to intestinal and urinary conditions in more advanced cases.<sup>2</sup>

It is worth mentioning that the history of cervical cancer, in most cases, has an extensive period of precursor asymptomatic lesions, being curable in almost all cases

when treated properly. It reinforces the importance of early diagnosis with the performance of the preventive examination for cervical cancer.<sup>3</sup>

It was found that for the development of cervical cancer it is necessary for the woman to have human papillomavirus (HPV) infection, with the HPV16 and HPV18 types being the most common for this pathology. In addition to this infection, other risk factors for cervical cancer are: multiple partners, genetics, immunity, age, smoking, among others.<sup>2</sup>

Regarding the prevention of cervical cancer, vaccination against the human papillomavirus is highlighted, which is available free of charge in health units. Health education practices in primary care are also important for the community, in order to sensitize women to adequate lifestyle habits that promote women's health.<sup>4-5</sup> Regarding the reduction of the incidence and mortality of the disease, the main strategy is the regular cervix cytopathological examination in women aged 25 to 64 years, which aims to diagnose early cervical cancer and precursor lesions. In this way, guiding and encouraging women to undergo the exam is essential for disease prevention.<sup>3-6</sup>

Even in view of the cervical cytopathological exam relevance in the prevention and early detection of the disease, it is observed that women have

difficulties in adhering to the exam, and the reasons for not performing it are related to the lack of knowledge of the importance of the procedure, low education, beliefs, fear of examination and possible diagnosis of the disease, shame and embarrassment, non-recognition of being a member of the risk group, socioeconomic and cultural level, among others.<sup>7-8</sup> This reflects the importance of disseminating information regarding the achievement of the examination and its relevance in the prevention of cervical cancer.

It is worth mentioning that it is the responsibility of the primary care team to carry out preventive actions against cervical cancer through health education activities, active search, immunization, in addition to the early detection of cancer and lesions through the cervical cytopathological examination, which is performed by the doctor or nurse in the health units.<sup>3</sup>

Among the actions developed by nurses, comprehensive care for women in the territory covered by the health unit under their responsibility stands out, from guidelines on primary and secondary prevention of cervical cancer, that is, awareness-raising to promote habits of healthy life until the completion of the nursing consultation, collection of cervical cytopathological examination and the referral in case of cytological changes.<sup>7,5</sup>

Due to the high incidence and mortality resulting from cervical cancer, it is important to identify the profile of women who undergo cervical cancer screening, in addition to identifying the results found, based on the fact that this examination is essential for secondary prevention, screening for neoplasms, identification and early treatment of lesions, thus providing an analysis of the need for activities to raise awareness of the population for adherence to the exam.

In view of the above, this study aims to identify the age of women who underwent cervical cytopathological examination from 2016 to 2018, in a School Health Unit in the Southern Region of Brazil, as well as to identify the results found.

## METHODOLOGY

This is a retrospective documentary research carried out through the analysis of records of the cervical cytopathological examination of a Basic School Health Unit in the southern region of Brazil. It should be noted that documentary research refers to access to original documents in search of information to be scientifically analyzed. This method eliminates researcher intervention in the research data.<sup>9</sup>

Data collection was carried out between April and June 2019, in which the

sample consisted of women who underwent the examination in the last three years (2016 to 2018) at the aforementioned health unit.

For the development of the research, authorization was first requested from the Municipal Health Department. After authorization and possession of this document, the research project was registered on Plataforma Brasil for consideration and opinion by the Permanent Committee on Ethics in Research Involving Human Beings (COPEP) of Universidade Paranaense - UNIPAR, being approved under the opinion CAAE 94762318.4.0000.0109. The waiver of the Informed Consent Term - TCLE was requested and approved, since it is a non-interventionist study using data from logbooks that do not allow the identification of participating users.

Soon after the approval of the research project by the ethics committee, the coordinator of the basic units of the municipality and the nurse responsible for the unit were informed about the start of the research. Thus, the Nursing students participating in the Scientific Initiation Project - PIC of a Private University in the Northwest of Paraná, together with the guiding professor, started the data collection, where the information obtained (age and result) were transcribed into a Microsoft spreadsheet Office Excel, in

which the analysis was later performed using descriptive statistics.

It is worth mentioning that the research project complied with all the ethical requirements established in CNS Resolution no. 466/2012.

## RESULTS

In view of the data collection, it can be seen that 1,278 cervical cytopathological exams were performed, in which 502 exams were performed in 2016, 384 exams in 2017 and 392 in 2018.

Table 01 highlights the number of women who underwent the preventive examination according to age group.

**Table 1** - Description of women who underwent cervical screening according to age and year of examination.

Age	Women 2016		Women 2017		Women 2018	
	n	%	n	%	n	%
Under 25 years	58	11.5	63	16.4	50	12.8
25 to 29 years	43	8.6	23	6.0	35	8.9
30 to 39 years	82	16.3	74	19.3	53	13.5
40 to 49 years	95	18.9	76	19.8	79	20.2
50 to 59 years	127	25.3	92	24.0	95	24.2
60 to 64 years	42	8.4	27	7.0	39	9.9
65 to 69 years	26	5.2	12	3.1	17	4.3
70 to 79 years	21	4.2	7	1.8	21	5.4
80 years or older	1	0.2	3	0.8	3	0.8
Age was not included	7	1.4	7	1.8	0	0
<b>Total</b>	<b>502</b>	<b>100</b>	<b>384</b>	<b>100</b>	<b>392</b>	<b>100</b>

Source: Authors, 2019.

It can be seen in Table 1 that there was a greater demand from women between 50 and 59 years for the cervical cytopathological examination in every year, followed by women between the age group

of 40 to 49 years and later from 30 to 49 years of age. It is worth mentioning that seven exams did not include the women's age.

In order to identify the results found in the cervical cytopathological exams performed at the health unit studied

between 2016 and 2018, Table 2 was performed.

**Table 2** - Description of the results of the cervical cytopathological examination from 2016 to 2018.

<b>Results of cervical cytopathological examinations</b>		
<b>Exam completion</b>	<b>N</b>	<b>%</b>
Within the limits of normality	635	49.7
Inflammation without etiologic agent	295	23.1
Supracytoplasmic bacilli suggestive of Gardnerella vaginalis	163	12.8
Supracytoplasmic bacilli suggestive of Candida albicans	65	5.1
Atrophy with inflammation	33	2.5
Low-grade squamous intraepithelial lesion (LSIL)	06	0.5
High-grade squamous intraepithelial lesion (HSIL)	03	0.2
Insufficient sample	02	0.2
No annotation results	76	5.9
<b>Total</b>	<b>1,278</b>	<b>100</b>

Source: Authors, 2019.

In Table 2, it can be seen that 635 (49.7%) women had normal results, 295 (23.1%) had inflammation without an etiologic agent and 163 (12.8%) tests were suggestive of Gardnerella vaginalis. It is noteworthy that only nine (0.7%) women had intraepithelial lesions, being they low (0.5%) and high grade (0.2%).

It can also be seen in Table 02 that 76 (5.9%) exams did not have any notes of the

result in the records of the health unit studied.

In order to identify the results of preventive exams according to the age group recommended for performing the procedure, that is, in women between 25 and 64 years old, the age classification was performed as shown in Table 3.

**Table 3** - Description of the results of the cervical cytopathological exams according to age group.

Result of cytopathological examination of the cervix	Age of women who underwent preventive examination									
	Under 25 years		25 to 64 years		65 to 79 years		80 years or older		No age	
	No	%	No	%	No	%	No	%	No	%
Within the limits of normality	64	37.4	508	51.7	50	48.1	05	71.4	08	57.1
Inflammation without etiologic agent	44	25.7	225	23.0	20	19.2	01	14.3	05	35.8
<i>Gardnerella vaginalis</i>	30	17.5	124	12.6	07	6.7	01	14.3	01	7.1
<i>Candida albicans</i>	19	11.1	44	4.5	02	1.9	00	0	00	0
Atrophy with inflammation	00	0	18	1.8	15	14.4	00	0	00	0
LSIL	05	3.0	01	0.1	00	0	00	0	00	0
HSIL	01	0.6	02	0.2	00	0	00	0	00	0
Insufficient sample	00	0	01	0.1	01	1.0	00	0	00	0
No annotation results	08	4.7	59	6.0	09	8.7	00	0	00	0
Total	171	100	982	100	104	100	07	100	14	100

Source: Authors, 2019.

In Table 03, it can be seen that in the recommended age group for the exam, that is, from 25 to 64 years old, most women (51.7%) had normal exam results, followed by benign changes such as inflammation without etiological agent and microbiological findings of bacilli suggestive of *Gardnerella Vaginalis*, with 02 (0.2%) women presenting high-grade

squamous intraepithelial lesion (HSIL) and only 01 (0.1%) woman presenting low-grade squamous intraepithelial lesion (LSIL). Women under 25 years of age had a greater propensity to lesions (3.6%) as well as benign changes, unlike women over 65 years of age who had only normal results and benign changes.

## DISCUSSION

Women aged 25 to 64 years showed greater adherence to cervical cytopathological examination, probably due to the age group recommended by the Ministry of Health to perform the procedure, in addition to being the most extensive age group when compared to other ages. The greater demand for the examination among women aged 50 to 59 years, followed by women aged 40 to 49 years, is notorious, and this may be related to the fact that this is the age group most affected by the disease.

These data differ from the research carried out in Sergipe, in which the age group with the highest adherence to the cervical cytopathological examination was among women aged 29 to 34 years.<sup>10</sup>

There is also a contrast with a Brazilian study carried out in the state of Rio Grande do Sul, where they identified an increase in the number of exams proportional to the age of the woman, being more frequent over 55 years of age.<sup>11</sup>

It is believed that the awareness of women aged between 25 and 64 years old to perform the exam by the health teams of the studied municipality has contributed to the adherence of this population to the exam.

Regarding the results of the tests, it is noted that in general 49.7% of the women presented results within the limits of

normality and when evaluated only women within the recommended age group for carrying out the cervical cytopathological examination, the proportion of normal tests reached 51.7%. These results were followed by inflammation without an etiologic agent as the most prevalent benign cellular alteration and microbiologic findings: supracytoplasmic bacilli suggestive of *Gardnerella vaginalis*.

Still on the results, it can be said that few women had lesions that were possibly precursors of cervical cancer, and the highest percentage was among women below the age group recommended for the exam, unlike women over 65 years old who did not have any injuries.

Lesions in women under 25 years may be related to lifestyle habits, early initiation of sexual practices, multiple partners, among others,<sup>3</sup> and the practice of health education aimed at this population is fundamental, aiming to sensitize women to changes with focus to reduce their exposure to disease.

It should be noted that women under 25 years are a risk group for HPV infection; however, they usually present spontaneous resolution, which justifies the follow-up of those who present changes in the preventive examination without interventions until the age of 25.<sup>3</sup>

Data found differ from the research by Ströher et al<sup>12</sup> carried out with women



who underwent the preventive examination at a health unit in Uruguaiana, in Rio Grande do Sul, in which, among the results of altered tests, a higher prevalence of squamous cell atypia of undetermined significance was identified. (ASC-US), followed by low-grade squamous intraepithelial lesions (LSIL). However, it is similar to the present study in demonstrating that the changes were more frequent in women under 25.

A survey carried out in the southern region of Brazil identified that 34.7% of the preventive exams performed had results within the limits of normality, being shown below the present study. But, it corroborates the study by identifying inflammatory changes as the most frequent in the results of the cervical cytopathological exam and a low percentage of low- and high-grade intraepithelial lesions.<sup>11</sup>

Corroborating the data presented, the study by Leitão<sup>13</sup> mentions that the most prevalent pathogenic agent in the results of preventive exams studied was *Gardnerella vaginalis* (28.3%), followed by cocci and bacilli (24.8%), *Candida* sp. (7.7%) and *Trichomonas vaginalis* (0.5%).

Still on microbiology, a survey carried out in Piauí, with women who presented cytopathological changes, found cocci as the most prevalent microbiological agent in the test results, unlike the present study in which the supracytoplasmic bacilli

suggestive of *Gardnerella vaginalis* were prevalent.<sup>14</sup>

It is worth mentioning that during the three years studied, no woman had carcinoma. This may be related to the women's healthy lifestyle habits and regular cervical cytopathological examination, since it can detect initial lesions that, when treated, prevent cervical cancer. . However, as the present study did not assess the frequency and coverage of the examination, these data may also relate to the failure in access and coverage of the cervical cytopathological examination, as women who have alterations may not have undergone the examination in this period.

It is worth noting that it was not possible to assess the coverage of the exam in that unit, since, as reported by the nurse in charge of the UBS, there was a change in the Unit's electronic system, which made it impossible to report the age range of the area covered in the years studied.

It is essential to emphasize that the record book contained the absence of data such as date of birth and test results. This should be reviewed and avoided, and organization is necessary, since the insertion of these data is of great importance for the planning of comprehensive care for the patient health.

## CONCLUSION

It can be seen from the results of the present study that women aged 50 to 59 years were prevalent in the examination, in which most of the results are within the limits of normality and with benign alterations, with precursor lesions being more frequent incidents in women under the age of 25.

It is worth reinforcing the need to make women aware of the importance of carrying out the preventive examination periodically for the prevention and early detection of cervical cancer, as well as encouraging them to adhere to healthy lifestyle habits and safe sexual practice.

It is also worth noting about the absence of information in the record books, being essential to review and organize the procedures related to the exam, in order to provide the planning of actions and consequently the quality of care provided.

Regarding the limitations, the development of the study in only one health unit can be highlighted, as well as the non-evaluation of the frequency and coverage of the cervical cytopathological examination.

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