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ORIGINAL ARTICLE

CELL CHANGES IN PAP REPORTS OF A STRATEGY FOR FAMILY HEALTH ALTERAÇÕES CELULARES EM LAUDOS DE PAPANICOLAOU DE UMA ESTRATÉGIA DE SAÚDE DA FAMÍLIA CAMBIOS CELULARES EN LOS INFORMES DE PAPANICOLAU DE UNA ESTRATEGIA PARA LA SALUD DE LA FAMILIA

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ABSTRACT

Objective: to evaluate Pap reports establishing the profile of service for women undergoing examination by identifying the age, correlating to the type of cellular alteration recorded. **Method:** Descriptive, retrospective and cross-sectional study with a quantitative approach. The population consisted of all records of Pap tests performed in the Family Health Unit (FHU), comprising a sample of 782 records. Data were collected, organized and analyzed with SPSS 16.0. The study was the research project approved by the Ethics in Research, CAAE: 4539.0.000.450.450-10. **Results:** we evidenced the predominance of women aged less than 35 years, the occurrence of benign cellular changes, notably the inflammatory type (53.1%), with peak attendance between the ages of 25-34 years and a decrease as age increases. **Conclusion:** cervical cancer appears as a major public health problem composing high levels of mortality. **Descriptors:** Women's Health; Health Vulnerability; Vaginal Smear; Cervical Neoplasia.

RESUMO

Objetivo: avaliar os laudos de Papanicolaou, estabelecendo o perfil de atendimento das mulheres submetidas ao exame, pela identificação da faixa etária, correlacionando ao tipo de alteração celular registrada. **Método:** estudo descritivo, retrospectivo e transversal com abordagem quantitativa. A população foi composta por todos os registros dos exames de Papanicolaou realizados na Unidade de Saúde da Família (USF), compondo uma amostra de 782 registros. Os dados foram coletados, organizados e analisados com o programa estatístico SPSS 16.0. O estudo teve o projeto de pesquisa aprovado pelo Comitê de Ética em Pesquisa, CAAE: 4539.0.000.450.450-10. **Resultados:** evidenciamos a predominância de mulheres com idade inferior a 35 anos, ocorrência de alterações celulares benignas, notadamente a do tipo inflamatória (53,1%), tendo pico de atendimento na faixa etária entre 25 a 34 anos e decréscimo conforme há aumento da idade. **Conclusão:** o câncer de colo uterino configura-se como um grande problema de saúde pública compondo altos níveis de mortalidade. **Descritores:** Saúde da Mulher; Vulnerabilidade em Saúde; Esfregaço Vaginal; Neoplasias do Colo do Útero.

RESUMEN

Objetivo: evaluar los informes de Papanicolaou y establecer el perfil de servicio de las mujeres sometidas a examen mediante la identificación de la edad, la correlación con el tipo de alteración celular registrada. **Método:** estudio con enfoque cuantitativo descriptivo, retrospectivo y transversal. La población estuvo constituida por todos los registros de las pruebas de Papanicolaou realizadas en la Unidad de Salud de la Familia (USF), que comprende una muestra de 782 registros. Fueron recogidos, organizados y analizados con el programa SPSS 16.0 Datos. El estudio fue el proyecto de investigación aprobado por el Comité de Ética en Investigación, CAAE: 4539.0.000.450.450-10. Los resultados evidenciaron el predominio de las mujeres menores de 35 años, la incidencia de los cambios celulares benignos, especialmente la de tipo inflamatorio (53,1%), con una asistencia máxima entre las edades de 25 a 34 años y que disminuye a medida que hay mayor edad. **Conclusión:** el cáncer cervical se presenta como un importante problema de salud pública componiendo altos niveles de mortalidad. **Descriptores:** Salud de la Mujer; Vulnerabilidad de la Salud; Citología Vaginal; Neoplasia Cervical.

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INTRODUCTION

Considered progressive disease, cancer of the cervix, is characterized by abnormal cervical intraepithelial, which can slowly evolve into invasive stage. Possessing well-defined stages, this cancer allows interruption from early diagnosis and early treatment at reduced costs.

Cancer and chronic diseases are becoming notoriously common worldwide and can cause devastating damage to entire families. In Brazil, in 2012, it is expected about 17,540 new cases of cancer of the cervix, with an estimated risk of 17 cases per 100 000 women, becoming the third most common type of cancer among women.¹

In 1998 it was created the National Program for Cervical Cancer Control (PNCCCU), developing tactics to control cases of cervical cancer in Brazil, being used as a method for tracking the Pap smear.²

The Pap test, also known as Pap smear is an important procedure for the early detection of genital diseases and mainly acts in reducing mortality from cervical cancer from the detection of precancerous invasive lesions.³ With that, it is important that it be done in sexually active women, in menopause and hysterectomy, and even if the result is negative for gynecological cancer, it is important to create a periodicity in its realization, since some of the stages are silent for some genital pathologies and due to the possible identification injuries prior to carcinoma.

Pap smear is the collection and analysis of cells from the ectocervix and endocervix, extracted by scraping the cervix exposed by the introduction of the vaginal speculum and resulting from a routine gynecological visit.⁴ Thus, it is a widespread technique for over 40 years,⁵ aiming to highlight the cells from the squamocolumnar junction (SCJ), ie the area where the squamous and glandular mucosa are, because that is the headquarters of most of the cellular pre-neoplastic and neoplastic changes.⁶

Even considering the benefits of preventive screening, it is estimated that about 40% of Brazilian women have never been subjected to the exam⁷. When they don't attribute their fears and afflictions to not having Pap smears, they are associated with other factors interfering in the exam, such as poor access and extensive queues. Thus, it is clear that the absence of the test is more related to internal and personal factors for each woman than from external factors, even though they are of great influence for their achievement.⁸

The Pap test has favorable cost-effectiveness for cancer prevention, but it needs to achieve a high coverage of the female population, although part of the program of care for women's health and individual consultation needs strategies to improve adherence in order to minimize the occurrence of cellular changes in Pap reports.

Despite effective control programs for cervical cancer in many centers, cervical carcinoma still remains a disease of high prevalence, incidence and mortality.⁹ Nevertheless, the evolution of a low-grade lesion to an invasive carcinoma may take 10 to 15 years, enough time for an intervention that can change the course of women's lives.¹⁰

The reports of Papanicolaou classify cellular changes identified in cervical smears from the association between the Bethesda System of 2001, the classification of Richart of 1967 which relates low squamous intraepithelial lesion (LSIL) with cervical intraepithelial neoplasia (CIN I) and HPV infection and squamous intraepithelial lesions of high-grade (HSIL) with CIN II and CIN III.¹¹

With the adoption of the Brazilian Nomenclature, a separate category was created for all atypicals thus decreasing the dubious diagnosis. Thus we have the following categories, listed on the Brazilian Nomenclature for the cytopathology reports: Atypical squamous cells of undetermined significance, possibly non-neoplastic; Atypical squamous cells of undetermined significance, when one cannot exclude high-grade squamous intraepithelial lesion, atypical glandular cells undetermined significance, both for the possibly non-neoplastic and for those that cannot move away from high-grade squamous intraepithelial lesions, atypical cells of unknown origin, possibly non-neoplastic and may not deviate from high-grade lesion, low-grade squamous intraepithelial lesion; high-grade squamous intraepithelial lesion, adenocarcinoma in situ / invasor; lesion cannot exclude high-grade micro invasion or invasive squamous carcinoma cell.¹²

With standardized and updated information, screening and therapeutic segment of women positive for cervical cancer becomes a powerful tool for epidemiological surveillance of cancer in the country, it can act as an effective strategy in reducing the incidence and mortality from this neoplasm.

Consubstantially, cervix cancer is preventable at early detection. Health professionals may encourage women's participation in screening programs for disease control. The education of the female population is necessary for the performance of

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preventive care for the maintenance of periodicity in having Pap smears and to reduce the incidence of new cases.¹³

Given these considerations, our objective: To evaluate the reports of Papanicolaou, establishing the profile of service for women undergoing examination by identifying the age, correlating to the type of cellular alteration recorded.

METHOD

This study was taken from the Final Report of the Research Project of Scientific Initiation / PIBIC / URCA, entitled *Analysis of vulvovaginitis frequently in a Family Health Unit of Juazeiro - Ceará*, effective from January to December 2011.

Descriptive, retrospective and cross-sectional study achieved through documentary research with quantitative approach, performed from the results of Pap tests in a Family Health Unit (FHU) in Juazeiro do Norte, Ceará, Brazil, located in the Cariri, south of Ceará, lying approximately 538 km from the capital (Fortaleza), with estimated population of approximately 244,701 inhabitants.¹⁴

The population consisted of all records of Pap tests performed at USF. The sample consisted of 782 records (100%) of the quadrennial reports of Papanicolaou, started in March 2008, the year in which the USF came into operation until December 2011, representing 46 months of running smear on the drive.

Exclusion criteria were sampling: the preventative considered unsatisfactory samples for analysis or those whose results had been received at USF until the completion of data collection.

Data were collected from October to December 2011, using a spreadsheet developed for this study, the analyzed variables were: the number of patients according to age, and most frequent cellular changes.

The results were analyzed using the statistical program SPSS 16.0 and organized into tables.

The research project was submitted to the Ethics Committee of the Universidade Regional Cariri (CEP / URCA), number of CAAE: 4539.0.000.450.450-10 being approved as Opinion No. 22/2010.

RESULTS

• Service Profile

Given the records of the reports of such tests of 782 women (100%), we found that the most prevalent age group in attendance was 25-34 years old (28.4%), followed by those with 35 to 44 years old (24%) and 15-24 years old (23%), totaling 75.4% of women between 15 and 44 years old (Table 1).

This age pattern in the preventive exam decreased with increasing age, demonstrating that there is a decrease in demand for care among women over 45 years old. We observed the following distribution in performing Pap: 45-54 years old (12.3%), 55-64 years old (7.6%) and over 65 (4.3%).

Thus, in these age groups the incidence of cervical cancer may be more likely. We also highlighted three test results with age below 15 years old, featuring 0.4% of visits.

Table 1. Distribution of preventive tests according to age and year of completion. ESF 55. Juazeiro do Norte, CE, 2012.

Age Group	Year				Total	
	2008	2009	2010	2011	N	%
< 15	01	-	-	02	03	0,4
15 - 24	53	51	52	24	180	23
25 - 34	54	83	57	28	222	28,4
35 - 44	35	65	57	31	188	24
45 - 54	21	31	30	14	96	12,3
55 - 64	11	14	21	13	59	7,6
> 65	05	09	17	03	34	4,3
Total	180	253	234	115	782	100

• Recorded Cell Changes

It is observed that among the benign changes registered, inflammation was the most widespread cellular alteration, represented especially in women aged between 25 and 34 years old (34.5%). This result may indicate genital flora imbalance in this age group, with a low rate of this benign change in women over 65 years of age.

The immature squamous metaplasia had record only 06 cases (0.8%) among all the results being shown in women 25-34 years old. This condition is of significance for the tracking and monitoring of this women, since, while cell maturation does not occur, this epithelium transformation process can evolve into a malignant cell. Now, in mature metaplasia, cell differentiation has already

been defined, reducing the possibility of a more severe differentiation.

It is pertinent to note that younger women had in their smear result atrophy with

inflammation, but this change peaked in the age group among 55 and 64 years old, corresponding to 37.3% of Pap results. (Table 2).

Table 2. Distribution of benign cellular changes recorded in relation to age in Pap tests. ESF 55. Juazeiro do Norte, CE, 2012.

Age group	Inflammation		immature squamous metaplasia		atrophy with inflammation	
	n	%	n	%	n	%
< 15	01	0,2	-	-	-	-
15 - 24	94	21,9	-	-	05	8,4
25 - 34	148	34,5	02	33,3	03	5,1
35 - 44	94	21,9	03	50,0	02	3,4
45 - 54	59	13,8	01	16,7	09	15,3
55 - 64	25	5,8	-	-	22	37,3
> 65	08	1,9	-	-	18	30,5
Total	429	100	06	100	59	100

Next, observing malignant changes, we evidenced among all possibilities only the occurrence of 'atypical cells of undetermined significance, possibly non-neoplastic', present in two reports, in 2009, in the age group 15-24 years representing (0.26%) among the study population.

DISCUSSION

Given the results, it was possible to consider that there was a predominance of performing Pap in women aged less than 35 years old, this has given resemblance to a study conducted in the city of São Paulo, where women aged 25 to 34 years old were more constant in the coverage of Pap tests, as they seek more health services seeking prenatal or family planning, since this does not reach the age of highest risk for cancer.¹⁵

The results revealed that there was a decrease in the demand for care by women aged over 45 years. Thus, in this age group, the incidence of cervical cancer may be more likely. Notably, women identified over the age of 55 years were the least likely to receive an examination. Moreover, the demand for care should occur in this age group, as recognized women aged 60 or older are more likely to develop cervical cancer.¹⁶ However, the Ministry of Health (MOH) recommends that all women of 25 to 59 years of age, or younger (if they have already started their sexual life), must submit to screening test on an annual basis, initially. After two consecutive examinations with negative results for cancer of the cervix, it acquires triennial periodicity.¹⁷

Despite the wide availability of such screening in public health, it still cannot reach the entire female population.¹⁸ Also, beyond the early diagnosis of precancerous lesions, HPV and Cervical Intra neoplasms (CIN), it becomes necessary to have a quick and effective treatment to increase the

chances that the patient may not develop cancer.¹⁹

Turning to the main benign changes encountered, the inflammatory type stood out, present in different reproductive stages, such as adolescence, youth and adulthood. There was a peak incidence in the age group 25-34, however, this type of benign change was also recorded in a user younger than 15 years old.

The 'atrophy with inflammation' was on the rise with increasing age of the woman, especially, after 45 years old, although cases have been registered since 15 years old. However, after evaluation of symptoms and gynecological examination, the clinical usual in such cases is to use vaginal creams containing estrogens.²⁰

In menopause, signs and symptoms, mostly the result of decreased levels of circulating estrogen, may lead to changes in general metabolism, the psyche and behavior of women.²¹

Metaplasia is also a change of the inflammatory type. However, the epithelium at this stage is more vulnerable to harmful microorganisms, including HPV. The approach recommended in these cases is to follow cytological routine screening.²² Following in the observation record of malignant changes were observed between all possible malignant changes only one type was present, the occurrence of atypical cells of undetermined significance not possibly neoplastic present in 2009 with two results in the age group 15-24 years from all reports of UBS. So in this case it is advisable to repeat the Pap smear in six months, at USF, and if there are two subsequent semi-negative Pap smears, the customer will return to routine cytological screening.²²

CONCLUSION

Cervical cancer appears as a major public health problem composing high levels of mortality. To guarantee the quality of life and success in the detection and treatment of cervical lesions, covering the Pap smear should increase in women who are at greater risk under the epidemiological point of view.

Laboratory investigation through the Pap smear in asymptomatic people is essential in the prevention of cervical cancer. In this sense it is significant the active participation of women aged over 45 years in the early detection of invasive carcinoma.

The atypia or cellular changes deserve special attention, since the correlation between abnormalities detected by cytologicals reach high proportions to the affection of a neoplasm in the cervix. It is observed that 496 (63.4%) had some type of change, taking into account all cytologicals possibly generate therapeutic treatment, predominantly benign.

This fact highlighted the need for greater attention in the implementation of actions to promote and protect health treatment success can be achieved, providing opportunities for appropriate therapy and follow-up and, thus, minimizing the high cost of cancer already installed and the consequences for the woman.

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