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PREVALENCE OF VULVOVAGINITIS IDENTIFIED IN CYTOLOGICAL EXAM

PREVALÊNCIA DAS VULVOVAGINITES IDENTIFICADAS NO EXAME CITOLÓGICO

PREVALENCIA DE LAS VULVOVAGINITIS IDENTIFICADAS EN EL EXAMEN CITOLÓGICO

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ABSTRACT

Objective: to identify the prevalence of microbiological agents of vulvovaginitis. ***Method:*** documentary and retrospective study of the time series from 2007 to 2011 of the record books of cytological examinations of the three Family Health Teams of Jacana-RN. Data collection was conducted from April to June 2013, after a favorable Opinion from the Ethics Committee: No. 313,430. Data were tabulated in Excel and analyzed using descriptive statistics. ***Results:*** there was prevalence of 4.45% for *Candida sp*, 12.7% for *Gardnerella vaginallis*, 2.48% for *Trichomas vaginalis* and 0.33% for *Chlamydia*. ***Conclusion:*** *Candida sp* and *Gardnerella vaginallis/mobilluncus* that compose the vaginal flora appeared, in general, compatibly with the clinical symptoms of women, however, health education activities are necessary regarding the use of condoms and risks of having multiple partners to minimize sexually transmitted infections: trichomoniasis and chlamydia. ***Descriptors:*** Vaginitis; Papanicolaou's test; Prevalence; Vaginal Smears.

RESUMO

***Objetivo*:** identificar a prevalência dos agentes microbiológicos das vulvovaginites. ***Método*:** estudo documental e retrospectivo da série histórica de 2007 a 2011, dos livros de registros dos exames citológicos das três Equipes de Saúde da Família do município de Jaçanã-RN. A coleta de dados foi realizada de abril a junho de 2013, após Parecer favorável do Comitê de Ética: nº 313.430. Os dados foram tabulados no Excel e analisados por meio de estatísticas descritivas. ***Resultados*:** houve prevalência de 4,45% para *Cândida sp*, 12,7% *Gardnerella vaginallis*, 2,48% *Trichomas vaginalis* e 0,33% *Chlamídia*. ***Conclusão*:** a *Cândida sp* e a *Gardnerella vaginallis/mobilluncus que* fazem parte da flora vaginal apresentaram-se, no geral, compatíveis com a sintomatologia clínica das mulheres, no entanto, fazem-se necessárias atividades de educação em saúde em relação ao uso do preservativo e os riscos de se ter múltiplos parceiros para minimizar as infecções sexualmente transmissíveis: tricomoníase e clamídia. ***Descritores*:** Vaginite; Teste de Papanicolaou; Prevalência; Esfregaço Vaginal.

RESUMEN

***Objetivo*:** identificar la prevalencia de los agentes microbiológicos de las vulvovaginitis. ***Método*:** estudio documental y retrospectivo de la serie histórica de 2007 a 2011, de los libros de registros de los exámenes citológicos de las tres Equipes de Salud de la Familia de la ciudad de Jaçanã-RN. La recolección de datos fue realizada de abril a junio de 2013, luego del Parecer favorable del Comité de Ética: nº 313.430. Los datos fueron tabulados en Excel y analizados por medio de estadísticas descriptivas. ***Resultados*:** hubo prevalancia de 4,45% para *Candida sp, Gardnerella vaginallis 12,7%, 2,48% y 0,33% tricomas vaginalis Chlamydia*. ***Conclusión*:** la *Candida sp* y la *Gardnerella vaginallis/mobilluncus que* son parte de la flora vaginal se presentaron, en general, compatibles con la sintomatología clínica de las mujeres, no obstante, son necesarias actividades de educación en salud en relación al uso del preservativo y a los riesgos de tener múltiples compañeros para minimizar las infecciones sexualmente transmisibles: tricomoniasis y clamidia. ***Descriptores*:** Vaginitis; Test de Papanicolau; Prevalencia; Fregamiento Vaginal.

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INTRODUCTION

Complaints due to vaginal disease or vulvovaginitides account for about 70% of gynecological consultations, which are responsible, respectively, for the majority of complaints of leucorrhea, both nationally and internationally, suffering variations in prevalence according to locality.[1] For diagnosis of these vaginal diseases, public service offers cytological examination that meets the secondary role combined with clinical symptoms of woman.[2]

Therefore, that examination allows detecting signs of inflammation of the vulva and vagina, favoring the screening and detection of vulvovaginitides, which constitute one of the most common gynecological problems in women. For this reasin, many of gynecological consultations in public health units must be resulting from uncomfortable signs and symptoms caused by such infections that can be caused by bacteria (gardnerella), fungi (candidiasis), and by associations of microorganisms.[1-3]

These disorders are characterized clinically by increased vaginal tissue, accompanied by itching, vulvar hyperemia and unpleasant odor, in the case of gardenerella, which worsens during menstruation and after intercourse.[3] Nevertheless, in addition to candidiasis and gardnerella that cause discomfort in patients, there are some pathogens that are included in the group of sexually transmitted infections (STIs) such as chlamydia (bacteria) and trichomoniasis (protozoan). [4] These STI's and cervical cancer also are among the diseases that promote the highest demand of women for health services.[1]

Thus, the Ministry of Health recommends as a priority strategy of prevention, diagnosis and control of cervical cancer, the realization of cytological examination in women aged from 25 to 64 years who have had sexual activity, and this practice has been implemented in the daily work of the teams of the Family Health Strategy (FHS), according to the *Programa de Controle do Câncer de Colo de Útero* (Cervical Cancer Control Program).[5] And, in this context, healthcare professionals should clarify women about the risk factors for malignancies, and propose preventive measures.[6]

Thus, the role of nursing in the care of women's health comprises the host of this woman in the FHS, the knowledge of the anatomy of the uterus, the correct technique of collecting oncologic cytology, the screening, the nursing consultation approaching the bio-psychosocial context in which the woman is inserted and the treatment and/or follow-up according to the protocols of the Ministry of Health.[1]

The importance of this study is due to the obtainment of a community overview on the etiological agents of gynecological diseases with high rates of clinical complaints, which is necessary for the FHS to draw future strategies of health education activities with a view to adopting behaviors that favor barriers to prevent the acquisition of the etiologic agents, through stimulation of safe sex, as well as the adherence of women to carry out the routine cytological examination for the detection, diagnosis and treatment, and especially for the prevention of cervical cancer.

Thus, this study is guided by the question: what is the prevalence of microbiological agents of vulvovaginitides in women who have undergone cytological exam from 2007 to 2011 in the Family Health Units? Therefore, the objective is to:

- Identify the prevalence of microbiological agents of vulvovaginitides.

METHOD

This study is an excerpt of the research entitled *Coverage of cervical screening: epidemiology and evaluation of clinical and therapeutic follow-up in women*.

Exploratory, descriptive study, with quantitative, documentary and retrospective approach of the historical series from 2007 to 2011 of the record books with collection and results of cytological examinations in the three Family Health Teams, performed in the municipality of Jacana, Rio Grande do Norte State.

According to the 2010 census, the city has 7,925 inhabitants, distributed over an area of 55km². Of this population, 3303 are women aged from 10 to 84 years old[7], which are registered in the Primary Care Information System (SIAB), since the city is 100% covered by the Family Health Strategy.

The municipality of Jacana has three Family Basic Health Units, where in the UBS-A and UBS-B the realization of cytological examination is scheduled by women in the unity and in UBS-C it is scheduled by Community Health Workers (CHW). The return date is scheduled by the CHWs after the results arrive from the cytopathology laboratory, located in Santa Cruz-RN. In the service in question, only nurses perform the collection of cytological examination.

Data collection was conducted from April to June 2013, respecting the following steps: 1) contact with the city Health Department to inform the objective and study methodology; 2) knowledge of the number of women aged from 10 to 84 years old who underwent collection and who have record of the results of cytological examinations in the three Family Health Teams; 3) data collection using the cytopathology record book, performed in the Basic Care Teams.

Then the 3861 cytopathology results registered were tabulated in Excel and analyzed using descriptive statistics and presented in tables showing the frequency and prevalence of data, number of examinations performed, and the main results on vulvovaginitides.

Before starting data collection, the project was submitted to the Research Ethics Committee (CEP) of the Federal University of Rio Grande do Norte, for the purpose of examination and approval, in line with the ethical aspects of Resolution No. 466/2012 of the National Health Council, with a favorable Opinion No. 313430.

RESULTS

Table 1. Number of cytological examinations performed in family health teams, from 2007 to 2011, in Jacana, Rio Grande do Norte, Brazil, 2012.

Year	2007	2008	2009	2010	2011	Total (Historical series)	Mean
Number of cytological examinations	951	744	765	721	680	3861	772

Source: Cytopathological examinations Record Book – Jacana-RN.
Legend: BFHU (Basic Family Health Unit)

In Table 1, the municipality held 3861 collection and results of cytological examinations during the time series from 2007 to 2011, presenting annual decrease.

Table 2. Annual distribution of cytological examinations microbiology from 2007 to 2011, in Jacana, Rio Grande do Norte, Brazil, 2012

Microbiology/year	2007	2008	2009	2010	2011	Total (Historical series)
Frequency-percentage	%-f	%-f	%-f	%-f	%-f	%-f
Candida sp	2.5(24)	3.2(24)	6.1(47)	5.6(41)	5.3(36)	4.45(172)
Gardnerellavaginallis	11(104)	9.4(70)	14 (107)	15.6(113)	14.4(98)	12.7(492)
Trichomonasvaginalis	3.2(31)	2.5(19)	2.3(18)	2.7(20)	1.1(8)	2.48(96)
Chlamydia	0.2(2)	0.1(1)	0.3(3)	0.5 (4)	0.4(3)	0.33(13)

Source: Cytopathological examinations Record Book – Jacana-RN.

Table 2 shows that the time series from 2007 to 2011 presented the prevalence of 4.45% for *Candida sp*, 12.7% for *Gardnerella vaginallis*, 2.48% for *Trichomas vaginalis* and 0.33% for *Chlamydia*, with *Gardnerella vaginallis* being the microorganism with greater incidence in these results.

DISCUSSION

In the time series under study, 3861 cytological examinations were collected, however, there was annual decrease in the number of these examinations. Studies on the reasons that influence the non-realization of cytological examination, according to the perception of women, point to feelings of shame, shyness and embarrassment of patients by exposure of intimacy and prejudice on the part of partners, lower acceptability of male nurses, lack of women's bond with the health professional, as well as careless of women and lack of requests from doctors and nurses.[8-11]

It is necessary to recognize the importance of government incentives that can contribute to adherence of these women to the cytological examination; however, gaps in public services are inserted in a context that often blaming health professionals for the shortcomings of the services becomes an easier alternative to justify the calamity of national health.[2]

Regarding the microbiological results, *Candida sp* is a fungus that inhabits the normal vaginal flora of women. When the concentration of this microorganism exceeds the acceptable amount, it becomes an infection called candidiasis, that may be sexually transmitted, but it is not its main route of transmission, as the transmission increases in conditions associated with high levels of estrogen; oral contraceptives and pregnancy; diabetes mellitus; corticosteroid therapy or broad spectrum antibiotics and HIV infection.[12]

The most common signs and symptoms of candidiasis are vulvar itching, presence of

lumpy white discharge, hyperemia and vulvar edema.[9] In the time series of the study, according to Table 3, *Candida sp* presented a percentage of 4.45%. The highest percentage was in 2009 with 6.1%, while study in João Pessoa-PB showed 24% in 2008[2] and in Iran from 2008 to 2009 prevalence of 11%.[13]

In comparison, the results for the diagnosis of vulvovaginitis caused by the bacterium *Gardnerella vaginalis* alone or associated with *Mobiluncus,* during the study period, is of 12.74%, with the highest percentage of 15.6% in 2010, whereas the studies mentioned above in Joao Pessoa-PB presented in 2007 record of 32% [2] and 17% in Iran.[13]

This bacterium also inhabits the normal vaginal flora of women, but in situations that promote the imbalance of the body, such as other infections, antibiotic use, depression, stress, pregnancy, use of IUDs and of vaginal douches, that can cause bacterial vaginosis with yellowish or grayish bullous, homogenous discharge and with an active odor similar to rotten fish. Thus, transmission is usually primary in women and sexual in men.[12]

However, the protozoan *Trichomonas vaginalis* is a causative agent of sexually transmitted infection that causes abundant, purulent, foamy and smelly discharge that is associated with deleterious effects on pregnancy, such as premature rupture of membranes, preterm labor and low birth weight.[12,14] In the five years, the study showed 2.48% of cytological results, corroborated by the study of biennium 2004-2005 in Sergipe, which presented prevalence of 3,47.[14] However, study in Iran from 2008 to 2009 obtained an incidence of 0.4%.[13]

Thus, *Gardnerella vaginalis* showed higher prevalence followed by *Candida sp* and *Trichomonas vaginalis*, which was supported by some studies[5,15] and unlike another one, in which the results showed the prevalence of *Candida albicans*, followed by *Gardnerella vaginalis* and *Trichomonas vaginalis*[15], because the prevalence of these diseases can be varied according to location and population.

In STD caused by *Chlamydia*, a gran negative bacterium, the infection usually manifests asymptomatic, rarely presenting leucorrhea, common in other sexually transmitted infections. However, this study found a rate of 0.33% among all results from 2007 to 2011 performed by the Brazilian Health System in Jacana-RN. As a consequence of this silent infection, one may cite the pelvic inflammatory disease (PID), the ectopic pregnancy and the postpartum endometritis, representing a major cause of perinatal morbidity, which can be easily and properly treated by antibiotics even during pregnancy.[17-18]

CONCLUSION

In microbiology, one can see in relation to the microorganisms that inhabit the vaginal flora, *candida sp* and *gardnerella vaginallis/mobilluncus*, which although they are not the main objective of the cytological examination, they had good sensitivity to these diagnoses, with a percentage of 4.45% and 12.74%, respectively, which is generally consistent with the clinical symptoms of women.

In Sexually Transmitted Infections, such as trichomoniasis and chlamydia, the following percentages were obtained from 2007 to 2011, respectively: 2.48%; 0.33%. For this reason, there is a demand for health education activities regarding safe sex, condom use and risks of having multiple partners, in odrer to minimize these percentages more and more.

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