Evaluation of care for elderly women with oncotic pap smear abnormalities in a referral unit

https://doi.org/10.56238/sevened2024.018-057

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ABSTRACT

Genital infection by the Human Papillomavirus (HPV) is the most frequent sexually transmitted infection in women and its prevalence is associated with risk factors such as: early initiation of sexual life, multiplicity of sexual partners and non-use of barrier methods. Studies show that despite the decrease in the risk of infection in relation to the general age group, a peak is recorded in women aged 65 years, with an increase in the prevalence of HPV. This fact is associated with increased longevity and better conditions of the population, which make them more active, with better quality of life, interests and sexual expressions. Studies addressing HPV infection in elderly women are negligible, although some aspects corroborate the occurrence of a peak in HPV prevalence at 65 years of age. Therefore, investigations that support this foundation are necessary to increase the scope of available information on HPV in this population group.

Keywords: Elderly, Oncotic Pap smear, Human Papillomavirus (HPV).

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INTRODUCTION

Human papillomavirus (HPV) infection is currently considered the most common sexually transmitted infection in the world. It is estimated that about 600 million people are infected with HPV and that at least 80% of the sexually active population has some contact with the virus throughout their lives (CARDIAL et al, 2017).

Especially in the female population, it is possible to see that in Brazil these estimates vary between 13.7% and 54.3% of women, which makes the country one of the world leaders in incidence for this infection (TAMAYO-ACEVEDO et al, 2014; COSER et al, 2012; GASPAR et al, 2015).

HPV infection began to draw the attention of the scientific community around the 1980s, when there was a correlation between cervical cancer and lesions caused by the presence of the virus (NEGRÃO et al, 2018). Currently, HPV is considered the virtual cause of about 100% of cases, as the analyses allow us to find the presence of viral DNA in 99.7% of cervical cancer events, which is why it is considered the greatest cause and effect relationship between an agent and cancer in humans (CARDIAL et al, 2017; WHO, 2016).

Cervical cancer is currently the fourth most common type of neoplasm among women in the world, with about 530 thousand new cases and 265 thousand deaths per year, thus also occupying the fourth position among the causes of cancer death in the female population (INCA, 2020).

In Brazil, the final estimate for each year of the 2020-2022 triennium was 16,590 new cases of cervical cancer, with an estimated risk of 15.43 cases per 100 thousand women, thus being the third most incident cancer estimated for 2020, behind only breast and non-melanoma skin cancer (INCA, 2020).

The Human Papillomavirus has more than 200 types of variations, however the most frequent related to cancerous lesions are the HPV-16 and HPV-18 types, they are present in 70% of cervical cancers and are also the most frequent among HPV-related cancers from other sites, such as the vagina, vulva, anus, penis and oropharynx (CARDIAL et al, 2017; WHO, 2016).

With regard to high-grade infections, it is also possible to see a highlight for HPV type 16, it is the most prevalent among genital tract infections, reaching up to 66%, followed by types 18 (15%), 45 (9%) and 31 (6%), however adding this 4 type of HPV, they can correspond to up to 80% of all cases of cervical cancer (TSUCHIYA et al, 2017).

Type 16, in addition to being the most common type detected in invasive cervical carcinoma in almost all parts of the world, is also considered the most persistent. This type has an infection lasting 12 months or more, while infections with other types of HPV last for about 6-8 months. Therefore, women with HPV 16 have an increased risk of developing cervical cancer when compared to those with other types of the virus (UK National Screening Committee, 2016).

Regarding the characteristics of the affected population, it is possible to notice that the first peak of incidence occurs around the second decade of life and a second peak occurs between the fifth and sixth decade of life (CARDIAL et al, 2017). In Latin America, for example, studies have observed that the second peak in HPV prevalence has a greater effect on women over 55 years of age (FRANCESCHI, 2006).

Overall, Guedes (2020) states that the highest incidence of cervical cancer is found in women aged between 40 and 60 years and points to a lower frequency before the age of 30, and relates this finding to the fact of the long period of evolution of HPV infection, until the appearance of cancer.

The World Health Organization understands the persistence of HPV infection as a factor responsible for cervical cancer, but it is not the only factor for the evolution of the disease. Thus, it points to the association with other risk factors, such as early initiation of sexual activity, high parity, multiplicity of sexual partners, in addition to smoking, low socioeconomic status, and prolonged use of oral contraceptives (CARVALHO et al, 2017; SIMÕES & ZANUSSO, 2019; FERLAY, 2018).

As it is a sexually transmitted virus, its prevalence has been increasing considerably worldwide due to numerous factors, including behavioral changes, longevity, and changes in sexual patterns of the general population in view of the elderly (NEGRÃO et al, 2018).

Most sexually active women will have contact with the virus at some point in their lives. However, more than 90% of these new infections will undergo spontaneous regression around 6 to 18 months, many of them triggered by the host's own immune response (NEGRÃO et al, 2018; INCA, 2016). However, the literature points out that the risk of acquiring a new type of HPV seems to be independent of previous infections by other types, as well as co-infection with multiple types of HPV and sequential infection with new types is quite common (GUEDES, 2020; INCA, 2020). Regarding the peaks of incidence and associated risk factors mentioned above, for example, it is possible to predict that the first peak may be related to the onset of sexual activity and other biological mechanisms, including cervical immaturity, inadequate mucus production and increased cervical ectopy, which may make young women and adolescents susceptible to this type of infection (CARDIAL et al, 2017; GUEDES 2020, Zhang, 2020), while the second peak can be explained by new exposure or loss of previous immunity, the immunity of climacteric women is weakened by several age-related factors, including systemic and local hormone deficiency (SASAGAWA, 2012; WHO, 2016.

Cervical cancer (CC) is a chronic disease that can originate from intraepithelial alterations in the squamous epithelium of the ectocervix (squamous cell carcinoma – SCC) or the columnar squamous epithelium of the cervical canal (cervical adenocarcinoma – ACC), which can become an invasive process [World Health Organization (WHO), 2014]. The most frequent histological types

are squamous cell carcinoma (80% of cases) and adenocarcinoma/adenosquamous carcinoma (about 20%) (CARDIAL 2017).

In Brazil, the Ministry of Health's cervical cancer prevention policies have recommended, since 1998, the performance of oncotic cervical smear tests for early detection of cervical cancer in all sexually active women, aged between 25 and 64 years. In the context discussed above, which deals with changes in the behavioral patterns of the general population, especially the elderly, and in view of the second peak already pointed out in the current literature, we noticed that the guidance regarding the focus group does not cover the population aged 65 years or older, who would also be within the risk group for the pathology.

This fact deserves reflection within the context that cervical cancer has one of the highest potential for prevention and cure, which comes close to 100% when diagnosed early. Its detection can also be carried out through the cytopathological test, a simple, easy-to-perform and low-cost test, which allows the discovery of precursor lesions of the disease in early stages, before the appearance of symptoms.

However, despite all the efforts and health policies already implemented, according to data from the Ministry of Health, in Brazil there are about 6 million women between 35 and 49 years of age who have never undergone the Pap smear test, which leads us to reflect on the efficiency and impact of current health education policies.

OBJECTIVES

The objective of this study was to demonstrate the alterations in the so-called abnormal oncotic smear smears (OCC) in women over 60 years of age, referred from the Primary Health Care Units to the onco-gynecology service of a tertiary hospital and, through the profile of this population, to stratify the main alterations found - severe atypia - high-grade intraepithelial lesion (HSIL), adenocarcinoma (AIS) and carcinoma (CA), in addition to analyzing the therapeutic approach proposed for women in this age group.

METHODOLOGY

This is a documentary, retrospective, cross-sectional and descriptive study developed in a public hospital that is a reference in onco-gynecology.

The sample used by the study consisted of medical records of women over 60 years of age, treated at the onco-gynecology service of a reference hospital with alterations in the oncotic Pap smear test, in the period between May 2017 and May 2019. Among the inclusion criteria, medical records of women aged 60 years or older with changes in the CCO were included, associated with

complete information recorded in the medical records about diagnosis and therapeutic approach, in addition to regular follow-up.

Cases that do not fit the inclusion criteria mentioned above, or that have data that are difficult to understand/interpret, in addition to reports from other health services, were excluded.

Data collection was carried out using a structured instrument, applied directly to the subjects' medical records and to the Records Book of the onco-gynecology unit. The structured instrument was composed of closed questions, divided into two parts. The first part of the instrument included sociodemographic data, and the second part included aspects related to the diagnosis, therapeutic proposal and clinical/surgical follow-up of the patient.

The data were treated through grouping in a database and analyzed by means of simple statistical analysis in relative and absolute numbers.

The construction of the database was done using the Excel platform of the Office 365 package and the data analysis was carried out using the statistical program SPSS, version 20.0.

The analysis had a descriptive and exploratory format of the data obtained, considering the presentation of frequency tables to describe the study population, initially characterizing the profile of the elderly women according to age group, marital status, education followed by the analysis of the most incident histological types and approaches proposed to the study population.

RESULTS

The initial sample, after applying the inclusion criteria, was composed of the medical records of 245 women, however, after applying the exclusion criteria, a final N of 202 patient records was obtained.

The profile of the analyzed population presented a mean age of 67.6 years with a median of 67 years; the 65-year-old fashion and the standard deviation of 4.59.

Marital status was predominantly represented by married women (29.63%), followed by widows (17.28%) and those who called themselves single corresponded to 16.67% of the sample.

Of the total number of medical records selected, the initial approach in 100% of the sample was to perform a new cytological analysis in the onco-gynecology unit, with altered results in 138 (68.65%) of the patients and 64 (31.34%) results did not present any significant alteration.

Among the main alterations found are atypia of undetermined significance in 42.6% of the samples, low-grade squamous intraepithelial lesions (LSIL) in 24.5% and results of severe atypia (high-grade intraepithelial lesion - HSIL, carcinoma in situ - AIS and invasive carcinoma - AC) were present in 31.7%.

Among the results of severe atypia (HSIL, AIS and CA) present in 64 of the 202 medical records analyzed, it is possible to see that the incidence of high-grade intraepithelial lesion was 16.83% (33/202), carcinoma in situ in 2.97% (5/202) and 13.36% (26/202) of invasive carcinoma.

The analysis carried out with the variables change in OCC and mean age of the affected group, it was apprehended that, among the portion of the sample that had adenocarcinoma in situ as a finding, the mean age of the affected elderly women was 70.2 years. Invasive carcinoma was present mainly among elderly women with a mean age of 68.4 years. HSIL lesions were present in the mean age of 65.5 years among those affected. LSIL alterations, on the other hand, were more prevalent with a mean age of 66.5.

Indeterminate results comprised 42.6% of the sample, with ASCUS/AGUS present in 18.1% of the sample analyzed with a mean age of 66.9 and ASC-H 24.6% with a mean age of 68 years.

When related to the variables change in OCC and marital status, it was possible to notice that 16.6% of the women with altered reports were designated single, followed by widows (17.2%) and 36.4% did not define marital status. Among the married women, 29.6% had an alteration in the CCO, with a p-value of less than 0.05, which can be characterized in this study as a factor associated with cervical injury.

Regarding the management carried out in the face of the alteration in oncotic Pap smear, active management was chosen in the face of the condition in 71%, among these, with the performance of LEEP and Conization being the most performed approaches. Conservative management, i.e., six-monthly follow-up with Pap smear, was performed in 29% of the sample.

CONCLUSION

According to the criteria of the World Health Organization, the collection of oncotic Pap smear should be completed at the age of 64, if the woman has a previous OCC without alterations.

However, in our study, the profile presented by the women was of an average age of 67 years and marital status predominantly married. Thus, despite the recommendation of the Ministry of Health, it is possible to see that this age group is prone to developing cervical cancer. Thus, the greater coverage of cervical cancer screening in this group, as well as the educational work to raise awareness of the use of barrier methods regardless of marital status, would compose effective strategies against cervical cancer, since a larger portion of our sample was composed of married women or women in a stable union.

We know that OCC performed in elderly women should be preceded by preparation in order to avoid misinterpretations and erroneous findings related to the interiorization of the columnar scale junction. This is reflected in the number of false-positive results found after a second cytological evaluation.

This factor is relevant since it burdens a specialized service and often delays the capture of patients with real care needs.

It was possible to perceive a relationship between high-grade lesions, AIS and IC in older and married women, leading us to infer that greater exposure to HPV contagion mechanisms at advanced ages is related to the development of pre-invasive lesions. Regarding this point, the literature shows that, after the age of 56, women are more predisposed to develop high-risk lesions when compared to young women, and the persistence of exposure to high-risk HPV associated with deficient screening of this group, combined with late diagnosis, may be related to the invasive and malignant potential of the disease.

Thus, when diagnosed late, these elderly women required active management, which was demonstrated by the high rate of this approach in the study.

In view of these analyses, it is possible to conclude that the changes in the sexual patterns of elderly women today reflect a need to readjust these parameters, the understanding of the need to implement a broader screening policy, in view of the comprehensive care policy, with better definitions for the gynecological health of elderly women.

Reducing morbidity/mortality of elderly women due to cervical cancer is a health goal yet to be achieved. Currently, the epidemiological picture of these neoplasms continues to maintain a significant position in the female group, and has been reflected in an increase in incidence in elderly women. This study demonstrates the high rate of severe atypia admitted late to a referral service for onco-gynecology, which may demonstrate flaws in the traceability process of cervical cancer in this population. It is possible to perceive the need to review policies aimed at this population not only to prevent mortality, but also to combat morbidity and ensure a healthy life for women in old age.

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