

The importance of early diagnosis in ovarian neoplasia: the role of the nurse in preventive actions

A importância do diagnóstico precoce na neoplasia de ovário: o papel do enfermeiro nas ações preventivas

Rosângela Sakman¹ • Aline Voltarelli²

RESUMO

Introdução: A área da saúde da mulher, inserida em um contexto de saúde pública, também vem sendo ameaçada por diversos agravos, destacando-se entre estes, os tumores dos ovários em virtude do diagnóstico precoce ser geralmente dificultado. **Objetivo:** Levantar os recursos preventivos para a identificação precoce do câncer de ovário. **Método:** Trata-se de um estudo exploratório de revisão da literatura de abordagem qualitativa, realizado nas bases de dados LILACS, BDNF e SCIELO (Scientific Eletronic Library Online), adotando um recorte temporal das publicações entre 2005 a 2016. **Resultados e Discussão:** Foram selecionados 12 artigos que mostraram que, embora tenham ocorridos avanços significativos nas áreas tecnológicas e científicas, o rastreamento eficaz do câncer de ovário ainda é bastante complicado. Por ser assintomático e inexistir recurso diagnóstico específico, alguns autores apontam os fatores de riscos com meios para a investigação do câncer de ovário. Nessa proposta as mulheres são categorizadas em grupos de risco, possibilitando que a suspeita seja confirmada com a criteriosa análise de exames laboratoriais, exames de imagem e exame físico. Considera-se a história familiar o fator de risco para câncer de ovário independente mais relevante. **Conclusão:** As pesquisas conduzidas na última década vêm mostrando que a investigação dos fatores de risco, principalmente a predisposição familiar, é útil frente a suspeita do câncer de ovário. Nesse sentido, propõe-se relacionar malignidade para as mulheres que se enquadram nos grupos de risco, permitindo desse modo que a suspeita seja confirmada com a minuciosa análise de exames laboratoriais, exames de imagem e exame físico.

Palavras-chaves: Saúde da Mulher; Câncer de Ovário; Diagnóstico.

ABSTRACT

Electronic Library Online) databases, adopting a temporal cut of the publications between 2005 and 2016. **Results and Discussion:** selected 12 articles that have shown that although significant advances have been made in technological and scientific areas, effective screening for ovarian cancer is still quite complicated. Because it is asymptomatic and there is no specific diagnostic resource, some authors point out the risk factors with means for the investigation of ovarian cancer. In this proposal women are categorized into groups at risk, allowing the suspicion to be confirmed with the careful analysis of laboratory tests, imaging and physical examination. Family history is considered the most relevant independent risk factor for ovarian cancer. **CONCLUSIONS:** Research conducted over the last decade has shown that the investigation of risk factors, especially familial predisposition, is useful in the face of suspected ovarian cancer. In this sense, it is proposed to relate malignancy to the women who fit into the risk groups, thus allowing the suspicion to be confirmed by the thorough analysis of laboratory tests, imaging tests and physical examination.

Keywords: Women's Health; Ovary cancer; Diagnosis.

NOTA

¹Master's degree in nursing from the University of Guarulhos (UNG), a health specialist. She is a Public Health Specialist with an emphasis in collective health at UNINOVE, a specialist in nursing teaching at the Technical College and at the Faculdade Brasil, Faculty FAMA-UNESP and Faculty of Sequential Faculty. Street: Cândida de Carvalho 111, Jardim São Sebastião - São Miguel Paulista. mail: rosangelasakman@yahoo.com.br

²Master. Master. Graduated in Nursing from Universidade Nove de Julho (UNINOVE); Specialization in Occupational Nursing at Cruzeiro do Sul University (UNICSUL); Specialization in Teaching in Nursing Technical and Higher Level by the Faculty of Campo Limpo Paulista (FACCAMP), Faculty invited to postgraduate in Nursing at the University Nove de Julho, Specialization in Distance Learning Methodology at Anhanguera do Taboão da Serra Faculty; Professor of Nursing graduation from the University of Brasília, FAMA de Mauá; Master in Health Sciences from IASMP. End. Rua Michael Bispo de Oliveira 247 Bairro Votupoca-Barueri - SP Brazil_ mail: alivolter@yahoo.com.br

INTRODUCTION

In the last decades, several diseases have been found to disrupt global public health. Each area or specialty faces specific problems ranging from controllable endemics to incurable, unpredictable and difficult to control diseases. The area of women's health, inserted in the context of public health, has also been threatened by several diseases, among them ovarian tumors.

Evidence accumulated in the literature has shown that all women are susceptible to developing ovarian cancer. Unlike other cancers, both developing and developed countries are equally affected by the disease. Because of this epidemiological scenario, it is considered important that health professionals have knowledge about the symptoms, as well as risk factors and family history, both on the maternal and paternal sides⁽¹⁾.

A worrying point to note is that the early diagnosis of ovarian cancer is usually made difficult, because its clinical manifestations become apparent only in the more advanced stages of the disease, that is, when the disease has already spread through the pelvis or upper abdomen or even to other organs. It is an uncommon cancer, but with a high lethality. Most cases are not hereditary. Therefore, at the time of the discovery of the disease, most of the affected women are in advanced stages.

It is necessary to clarify that tumors arising from the ovary are epithelial carcinomas that occur in the cells of the surface of the affected organ. The most common tumors that affect women are those of germ cells that give rise to oocytes. Ovarian epithelial neoplasias are tumors consisting of one or more types of epithelium and stroma in varied combinations. It is worth adding that most of these tumors are derived from the ovary lining epithelium².

The other types are very rare. The mature cystic teratoma belonging to the group of germinal neoplasms is very common and accounts for about 30% of all ovarian tumors. Even within the large group of sex cord and stromal tumors, granulosa cell tumors are which most often have an aggressive behavior, and correspond to 1% of all ovarian tumors³.

It should be emphasized that the knowledge of the genetic history becomes fundamental for the prevention, diagnosis and treatment of neoplasias.

This knowledge is especially relevant in ovarian carcinoma because it may contribute to early stage detection. In addition, knowledge about the signs and symptoms of ovarian cancer may allow women to have an early diagnosis and treat the disease more easily. Advanced gynecological cancer is experienced in a variety of ways. Often, the patient experiences a reaction of revolt, despair or anguish, at other times, can live a state of acceptance, with serenity⁴.

Emotions and feelings are influenced by the environment in which these women are inserted. The way a woman can behave in relation to her life tends to have influence.

Considering the difficulty faced by health professionals for the early diagnosis of ovarian tumors, and the severity of the cases identified in advanced stages of the disease, the interest arose in reviewing the literature in order to present the available evidence on the importance of the detection of this gynecological cancer, in order to deepen the knowledge, giving support to the decision making in the care practice and, therefore, improving the care given to women⁵. Since the early diagnosis is of paramount importance, and can thus alleviate the suffering of the women affected by this neoplasm so lethal. Raising the existing preventive resources for the early identification of ovarian cancer. Encourage women about the importance of preventive examinations, guide the relevance in adopting periodic medical consultations, thus avoiding late detection⁶.

METHOD

This is an exploratory study of a literature review with a qualitative approach, with a transversal cut. Bibliographic research can therefore be understood as a process involving the following steps: preliminary bibliographic survey; formulation; preparation of the provisional plan of the matter; search of sources; reading material; registration; logical organization of the subject; writing of the text⁷. Data collection was done through a mechanical and computerized consultation in the BIREME bibliographic database and included the articles indexed in the databases LILACS (Latin American Literature in Health Sciences), BDENF (Bibliographic Database Specialized in the Area of Nursing of Brazil) and SCIELO (Scientific Electronic Library Online).

The descriptors used in this research were consulted in the list of descriptors in Health Sciences (DECs), in order to use the appropriate keywords for bibliographic research. To identify the articles, the descriptors of DeCS8 - Descriptors in Health Sciences: "Ovary Cancer" and "Diagnosis" were used. In the subsequent stage, the articles of interest for this study were selected, considering as criteria: health articles, being a work developed at the national level; been published in the period from 2005 to 2016 due to the scarcity of the literature; be available in full in Portuguese online, address in the summary and / or title characteristics and / or aspects on the early diagnosis of ovarian cancer.

Based on this search, an exploratory reading was carried out, constituting the verification of the ab-

stracts in order to select the articles related to the object of study; then the article was read in full and later analysis and discussion of the article according to its results and parameters; synthesis of the results presented in the publications and, finally, the correspondence for each publication, highlighting the thematic nuclei built in each article, with the aid of an instrument created for this purpose.

The data collected were stored in an electronic database, and the results will be presented in absolute and percentage values in the form of tables and figures. The sample is made up of scientific articles, in Portuguese, online, available in full and that address the theme: "Ovarian neoplasms and the importance of early diagnosis" in the period from 2005 to 2018.

RESULTS E DISCUSSION

With the searches made in the databases previously mentioned and using the chosen descriptors, it was possible to select 12 articles from 2005 to 2016, which deal with the early diagnosis of ovarian cancer. Table 1 shows the variables title, author, periodical, year, type and place of research of the selected studies.

After the periodical refinement process, the classification was started according to the year of publication, methodological approach and region of origin of the studies (Figures 1, 2, 3).

In this sense, with regard to the year of publication, the great majority of journals were published in 2009, totaling 04 (34%) studies. In the year 2015, 02 (17%) studies were published, in the years 2005, 2007, 2010, 2011 and 2016 was published 01 (8%) study respectively. In the years 2006, 2008, 2012, 2013 and 2014, studies were not published. It was noticed that the highest concentration occurred in the State of Rio de Janeiro (RJ) with 06 works (50%). The states of São Paulo (SP) and Rio Grande do Sul (RS) presented 02 (17%) studies. On the other hand, Goiás (GO) and Brasília (DF) obtained 01 (8%) study, respectively. As shown in Figure 3, it is possible to observe that the great majority of the scientific production comes from the southeast region, being the smaller production referring to the south and center-west regions, with absence in the regions: northeast and north⁷.

The authors of the selected studies are unanimous in pointing out the high mortality and the minimum number of cases of ovarian cancer diagnosed in the early stages, due to the lack of diagnostic resources for early identification⁵.

The authors^{2,3,4} elucidate the usefulness of obtaining the clinical history, the physical examination, the combination of diagnostic tests (transvaginal ultrasound and

CA 125 tumor marker) and ultrasonography in the early identification of ovarian cancer⁸.

They¹² report that the sensitivity of the CA 125 tumor marker for the diagnosis of ovarian cancer is 80% to 85% in the epithelial type varying according to the staging, being 50% in stage I, 90% in stage II, 92% and 94% in stages III and IV respectively." The studies^{4,2,18} confirm that the markers have a relevance in the early detection of tumor recurrence, in population screening, differential diagnosis of symptomatic patients, clinical staging, estimation of tumor volume and localization of metastasis. However, the authors complement that these markers should be associated with other resources for the diagnosis, warning that they are insufficient in the initial detection of ovarian cancer.

The authors emphasize the use of grayscale ultrasound morphology in pelvic mass characterization, thus distinguishing benign and malignant tumors.⁹ Two studies address the impact of prophylactic oophorectomy on the risk of ovarian cancer. Lima et al. (2009) found that prophylactic oophorectomy is indicated in well-established age groups for women with mutations in BRCA-1 and BRCA-2 genes. They investigate the findings of the literature on the association between bilateral prophylactic oophorectomy and ovarian cancer in patients with no increased risk for the disease, finding only one study confirming the benefit of bilateral oophorectomy in the reduction of ovarian cancer¹⁷.

Studies point to broad median laparotomy as a means of diagnosis, staging, and therapeutic approach to ovarian cancer in patients with an adnexal mass who are at risk of malignancy. The authors caution that minimal evidence regarding the development of ovarian cancer is essential in the presence of an adnexal mass because of the risk of malignancy. In this sense, the characteristics of the imaging tests, age, family history, symptomatology, physical examination findings and levels of tumor markers should be considered in the evaluation¹⁶.

The authors¹ describe a dualistic model, which groups epithelial cancers into two broad categories, called Type I and Type II. The authors elucidate that a precursor lesion of ovarian cancer has not yet been detected, and new theories about the origin of this ovarian cancer suggest that it is not in the ovary that the pathology starts, thus bringing new perspectives to the diagnosis.

In a cohort study⁶ conducted with 51 women diagnosed with ovarian cancer, they assessed the relationship between clinical and demographic characteristics with an increased risk for a familial predisposition, based on personal and family history of cancer. The results showed that 17 patients had a family history of breast and/or ovary cancer, four had a history of breast or endometrial cancer, 11 were diagnosed before age 50, and 12 pre-

TABLE 1 – Distribution of publications on early diagnosis of ovarian cancer. By: title, authors, year and periodical. São Paulo, 2017.

Title	Author	Periodics	Year	Type of research	Research Location
Screening and diagnosis of ovarian neoplasms: role of tumor markers	REIS, Francisco José Candido dos.	Brazilian Journal of Gynecology and Obstetrics	2005	Bibliographic research	Rio de Janeiro
Tumor markers: literature review	ALMEIDA, José Ricardo Chamhum <i>et al.</i>	Brazilian Magazine of Cancerology	2007	Pesquisa bibliográfica	Distrito Federal
Ultrasonography in the conduction of pelvic masses	MARTINS, Wellington de Paula <i>et al</i>	FEMINA	2007	Bibliographic research	Rio de Janeiro
Rastreamento e diagnóstico do câncer de ovário	APPEL, Márcia <i>et al.</i>	Revista AMRIGS	2009	Bibliographic research	Porto Alegre
Unilateral ovarian tumor with pleural effusion: case report	FREITAS, Alexandra M. S.; LONGHI, Kamila Aparecida	VITTALL	2009	Case study	Rio Grande do Sul
Prophylactic oophorectomy: current indications	LIMA, Renilton Aires <i>et al</i>	FEMINA	2009	Bibliographic research	Rio de Janeiro
When to do prophylactic oophorectomy based on evidence, not on assumptions	PARENTE, Raphael Câmara Medeiros <i>et al.</i>	FEMINA	2009	Bibliographic research	Rio de Janeiro
Approach of adnexal masses with suspected ovarian cancer	LIMA, Renilton Aires Lima <i>et al</i>	FEMINA	2010	Bibliographic research	Rio de Janeiro
Tumor Markers for Ovarian Cancer: What's New?	VALENTE, Vivian; MASSABKI, Paulo Sergio	Revista Brasileira Clínica Médica São Paulo	2011	Bibliographic research	São Paulo
National Cancer Institute. Ovarian cancer symptom.	Instituto nacional do Câncer	Instituto Nacional do Câncer	2012	Bibliographic research	São Paulo
Ovarian or ovarian cancer? The great current dilemma	ALBERNAZ Flávia Renata Motta Zanoni; SCHUNEMANN JÚNIOR, Eduardo.	FEMINA	2015	Bibliographic research	Rio de Janeiro
Association of family history and lifestyle to morbidities in ovarian cancer patients	TEIXEIRA, Natália <i>et al</i>	Revista Associação Médica Brasileira	2015	Prospective cohort study	São Paulo
Ovarian cancer and early detection: literature review	OLIVEIRA, Katiele Marques; OLIVEIRA, Murielly Marques; ARAÚJO, Raquel Soares.	Revista Científica FACMAI	2016	Bibliographic research	Goiás

Source: (LILACS, SCIELO, BDEF, 2017).

sented a risk of familial predisposition for ovarian cancer greater than 10%¹⁰. The diagnosis of ovarian cancer is not easy. At the beginning, the symptoms are non-existent or very vague, and when the diagnosis is made, most cases are no longer located in the ovaries and have spread through the abdomen^{11,26}.

The findings in the literature show that, although significant advances have been made in the technological and scientific areas, effective screening for ovarian cancer is still very complicated, since this type of tumor is asymptomatic throughout its development process, manifesting clinically only when in an advanced stage. Besides this aggravating, there is no diagnostic method considered reliable, easy to perform and achievable in all women¹³.

Therefore, because of the fact that it is asymptomatic and does not have a specific diagnostic feature, some authors point out risk factors with a means to investigate ovarian cancer. In this proposal, women are categorized into risk groups, allowing the suspicion to be confirmed with the careful analysis of laboratory tests, imaging tests and physical examination^{4,6,13}.

Family history is considered the most relevant independent risk factor for ovarian cancer. Evidence showed that the presence of two first-degree relatives with the diagnosis of the tumor is associated with a relative risk of developing, equal to 3.6; even among second-degree relatives this same risk reduces to 2.9. In these cases, mutations in BRCA-1 and BRCA-2 genes, located on chromosomes 17 and 13, respectively, are responsible for 90% of cases of hereditary cancer. BRCA-1 accounts for approximately 60% of ovarian tumors and the BRCA-2 mutation for 30%^{4,22,20}.

Studies confirm that the major non-modifiable risk factors for ovarian cancer are age, genetic susceptibility, and women with deleterious mutations in genes related to ovarian cancer⁶.

Once identified to the at-risk population, ovarian cancer screening is recommended through serial measurements of the CA 125 serum tumor marker and transvaginal ultrasound (VALENTE, MASSABKI, 2011; REIS, 2005).

The guidelines state that women identified as a high-risk family (positive family history), starting at age 35, should perform AC12 serum and transvaginal ultrasound every 6 to 12 months in combination. In cases where the results are abnormal, ultrasound is indicated^{4,13,22}.

However, the results obtained in the studies conducted in the last decade have shown contradictory results on the efficacy of this strategy in relation to early identification and reduction in mortality^{4,15}.

Because the CA 125 tumor marker is a high molecular weight sialomucin, broadly termed MUC 16, a cutoff of 35U / ml is used as a method for detect-

ing ovarian cancer¹⁶ emphasize that the CA125 tumor marker is only elevated in half of ovarian tumors in stage I. They also warn that high levels of CA 125 (measured above 35 U / ml) are observed in gynecological cancers (endometrial, endometrial and endometrial tumors) and in lung and gastrointestinal tract cancer. Therefore, the isolated use of this antigen as a screening method has been widely discussed¹⁷. It is understood that in addition to the absolute value initially verified, the age of the patient and, mainly, the values obtained in serial dosages should also be considered. Women with ovarian carcinoma have increased CA 125 levels, and transvaginal ultrasound is recommended, regardless of normal absolute results (CA 125 less than 35 U/ml)^{18,23}.

Some studies have shown that the tumor markers associated with ultrasonography do not allow the early diagnosis, however, they aid in the diagnosis and subsidize the detection of tumor recurrence^{21,25}.

CONCLUSION

The findings in the literature confirm that ovarian cancer presents low prevalence, however, it is pointed out as the main protagonist in the mortality among the gynecological neoplasias.

The available evidence shows that the late diagnosis due to the lack of effective resources and the scarcity of symptoms in the early stages of the disease justify, in part, the low survival rate and significant mortality. The research conducted in the last decade has shown that the investigation of the factors of risk, especially family predisposition, is useful in the face of suspected ovarian cancer.

In this sense, it is proposed to relate malignancy to the women who fit into the risk groups, thus allowing the suspicion to be confirmed with the thorough analysis of laboratory tests, imaging and physical examination. Thus, professionals in the area of health care, especially the Nursing team, need to have in-depth knowledge about the risk factors for ovarian cancer, because it allows the approach of women based on scientific evidence.

Likewise, they should know what the symptoms of this type of gynecological cancer are. From the identification of women who fall into the category of risk, it is possible to refer it to the tests currently proposed for the diagnosis of cancer of ovary, which are the serial measurements of the serum tumor marker CA 125 and transvaginal ultrasound. It is fundamental, therefore, to identify who is part of the group of patients with high risk profile and, from that, to outline the most effective strategy for the investigation diagnostic.

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