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Self-care practices and immediate side effects in women with gynecological cancer in brachytherapy*

Práticas de autocuidado e os efeitos colaterais imediatos em mulheres com câncer ginecológico em braquiterapia

Prácticas de autocuidado y los efectos colaterales inmediatos en mujeres con cáncer ginecológico en braquiterapia

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Abstract: **Objective**: to reveal the immediate side effects and self-care practices adopted by women with gynecological cancer submitted to brachytherapy. **Method**: narrative research, conducted with 12 women, in southern Brazil, between December/2018 and January/2019, including semi-structured interviews submitted to content analysis. **Results**: three thematic categories emerged from the analysis: Care oriented and adopted by women in pelvic brachytherapy; Immediate side effects perceived by women in pelvic brachytherapy; Care not guided by health professionals. The care provided by the nurses most reported by the women was vaginal dilation, use of a shower and vaginal lubricant, tea consumption, cleaning, and storage of the vaginal dilator. The side effects most frequently mentioned in the interviews were urinary and intestinal changes in the skin and mucous membranes. **Conclusion**: nursing care in brachytherapy must prioritize care to prevent and control genitourinary and cutaneous changes, including self-care practices.

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Descriptors: Oncology; Nursing; Brachytherapy; Neoplasms of the female genitals; Personal narrative

Resumo: Objetivo: revelar os efeitos colaterais imediatos e as práticas de autocuidado adotadas por mulheres com câncer ginecológico submetidas à braquiterapia. **Método: pesquisa narrativa, realizada com 12 mulheres, no Sul do Brasil**, entre dezembro/2018 e janeiro/2019, incluindo entrevista semiestruturada submetida à análise de conteúdo. **Resultados**: da análise emergiram três categorias temáticas: Cuidados orientados e adotados pelas mulheres em braquiterapia pélvica; Efeitos colaterais imediatos percebidos pelas mulheres em braquiterapia pélvica; Cuidados não orientados pelos profissionais da saúde. Os cuidados orientados pelas enfermeiras mais relatados pelas mulheres foram dilatação vaginal, uso de ducha e lubrificante vaginal, consumo de chá, higienização e guarda do dilatador vaginal. Os efeitos colaterais mais citados nas entrevistas foram alterações urinárias e intestinais na pele e mucosas. **Conclusão:** evidencia-se que a atenção de enfermagem em braquiterapia deve priorizar cuidados para prevenir e controlar as alterações geniturinárias e tegumentares, incluindo práticas de autocuidado.
Descritores: Oncologia; Enfermagem; Braquiterapia; Neoplasias dos genitais femininos; Narrativa pessoal

Resumen: Objetivo: revelar los efectos colaterales inmediatos y las prácticas de autocuidado adoptadas por mujeres con cáncer ginecológico sometidas a la braquiterapia. **Método: investigación narrativa, realizada con 12 mujeres, en el Sur de Brasil**, entre diciembre/2018 y enero/2019, incluyendo entrevista semiestructurada sometida al análisis de contenido. **Resultados**: del análisis surgieron tres categorías temáticas: Cuidados orientados y adoptados por las mujeres en braquiterapia pélvica; Efectos colaterales inmediatos percibidos por las mujeres en braquiterapia pélvica; Cuidados no orientados por los profesionales de la salud. Los cuidados orientados por las enfermeras más relatados por las mujeres fueron dilatación vaginal, uso de ducha y lubrificante vaginal, consumo de té, higienización y guarda del dilatador vaginal. Los efectos colaterales más citados en las entrevistas fueron alteraciones urinarias e intestinales en la piel y mucosas. **Conclusión:** se observa que la atención de enfermería en braquiterapia debe priorizar cuidados para prevenir y controlar las alteraciones genitourinarias y pigmentarias, incluyendo prácticas de autocuidado.
Descriptores Oncología; Enfermería; Braquiterapia; Neoplasias de los genitales femeninos; Narrativa personal

Introduction

Gynecological cancers, excluding breast cancer, affect the cervix and the body of the uterus (especially the endometrium), the ovaries, the fallopian tubes, the vagina, and the vulva. The first three cited topographies stand out for their incidence, mortality, and prevalence. It is estimated that the high incidence of these diseases will persist in the coming decades, especially in developing and underdeveloped countries. Currently, the worldwide incidence of cancer of the cervix, body of the uterus and ovaries, is equivalent, respectively, to 569,847, 382,069, and 295,414 new cases.[1-3]

Surgery, chemotherapy, radiotherapy, and hormone therapy are widely used to control gynecological cancers. Brachytherapy, one of the main treatment modalities for gynecological

cancers, configures a specific form of radiotherapy (application of ionizing radiation), which consists of the precise placement of radioactive sources inside or close to the tumor.[4-5]

For the treatment of locally advanced cervical cancer, the most frequent type of gynecological cancer, there is an indication for the simultaneous administration of teletherapy (external radiotherapy) with chemotherapy, followed by brachytherapy (internal radiotherapy). The association of brachytherapy with other therapies is a contributing factor to the emergence of side effects.[5]

Side effects resulting from brachytherapy can be immediate or delayed. The main immediate physical side effects include inflammation of the vaginal mucosa, diarrhea, vaginal bleeding, fatigue, and bladder changes. The most common late side effects are vaginal bleeding, rectal ulcerations, bladder changes, shortening and narrowing of the vagina (vaginal stenosis). The late effects usually begin three months after the end of brachytherapy or during the first three years.[6-7]

The adoption of health care can prevent or minimize these side effects. Thus, the nursing consultation focused on health education for self-care, centered on the needs of each woman, must be started even before the start of treatment. The educational process must continue during and after the end of brachytherapy to minimize possible damage related to women's health.[8-9]

In Brazil, the adherence of women submitted to brachytherapy to self-care practices is below the health needs, similar to the difficulties evidenced in other countries. The definition of specific recommendations to women, standardized by the services, based on scientific, quantitative, and/or qualitative evidence, favors better results observed in clinical practice.[8-9]

At the Radiotherapy Outpatient Clinic of the Oncological Research Center (CEPON) (Santa Catarina/Brazil), women in pelvic brachytherapy are guided by nurses in nursing consultations, carried out before, during, and at the end of brachytherapy. In these consultations, nurses aim at welcoming, clarifying treatment and side effects and the care to be taken during and after the end of brachytherapy. After the treatment, the women remain under regular follow-up with the physiotherapist, and medical consultations with the radiotherapist and oncologist.

CEPON nurses observed the need to build an educational booklet to assist women in adopting care during and after brachytherapy to improve health education developed in nursing consultations. To favor this construction, the object of this investigation was idealized, with the research question: what are the immediate side effects perceived by women with gynecological cancer during brachytherapy and the self-care practices guided by the team and adopted by these women?

The inclusion of educational material is a good practice, as it complements the health education actions offered in nursing consultations and helps understanding and adherence to treatment. Well-informed and advised women in brachytherapy are less likely to have feelings, such as fear and anxiety, and their therapeutic experience is more likely to be remembered as positive.[10]

In this care context, the identification of the immediate side effects perceived by the women and the care that they perform after professional guidance can contribute to the nursing assessment and construction of the educational booklet contents, complementing health education initiated in the nursing consultation. Thus, we justify the development of this study.

Also, the scientific literature points out the immediate and late side effects that can occur as a result of pelvic brachytherapy. The type of device used to administer ionizing radiation contributes to better control and prevention of these side effects, but the approach of nurses is also another contributing factor.[8-9,11] However, when the clinical approach is based on the needs of women, it tends to increase nursing outcomes.

In this perspective, the contribution of this investigation will be linked to nursing actions based on the health needs revealed by women with gynecological cancer in brachytherapy, which are addressed in nursing consultations, as stated by the team, and which will be included in the educational booklet. Therefore, the objective is to reveal the immediate side effects and self-care practices adopted by women with gynecological cancer submitted to brachytherapy.

Method

This is about narrative research, a methodology that allows the collection of stories about a certain phenomenon and the understanding of the lived experience, in a process that includes the collaboration of the researcher and the participant to apprehend the experience. When applying the interviews in data collection in this type of investigation, the recommendation for the central narration of the participant is to use a triggering question, since the researcher should not interrupt the narration, he should only encourage the continuity of the report using non-verbal communication. Complementary questions can be asked to expand the narrative, as long as the researcher does not issue opinions and does not discuss contradictions.[12] Associated with this methodology, the content analysis technique[13] was adopted for the understanding and presentation of the investigated phenomenon.

The study scenario was the CEPON Radiotherapy Ambulatory, which attends about ten women each month; 79% of them with diagnoses of cervical cancer and 19% with endometrium cancer.[14] This scenario of cancer care offers, since 2006, high dose rate brachytherapy to women with gynecological cancers, which consists of the application of ionizing radiation by the Iridium 192 source and by a set of procedures performed by the health team for greater safety for women. According to international recommendations, the total treatment dose for high dose rate brachytherapy is 25 to 30 Gray, with up to five separate fractions administered, a maximum of two fractions per week and never on consecutive days.[11] At the CEPON outpatient clinic, brachytherapy is administered to women with gynecological cancer in three (hysterectomies) or four (non-hysterectomies) fractions, within 15 days.

The study included women with gynecological cancer submitted to brachytherapy, returning to the service for follow-up consultation with the radiotherapist, approximately 45 days after the end of treatment. Exclusion criteria were defined as women with reports of pain and clinical changes that hindered communication during data collection, for example, intense nausea and altered level of consciousness. All women selected and assisted during the data collection period

were considered eligible, as they met the inclusion criteria. We invited them to participate at the end of the medical consultation.

The period of data collection occurred between December 2018 and January 2019. All patients scheduled during this period (12 women) were selected and included in the investigation. The number of participants was defined by data saturation, identified when new information was not found in the women's narratives in the development of content analysis,[13] which defined the conclusion of the data collection period.

For data collection, we used the semi-structured interview technique, applied by a nurse working in the study scenario and the main researcher of this study. They were carried out in a nursing office, after consultation with the radiotherapist, with attention to the participants' privacy. They lasted approximately 25 minutes, recorded and transcribed with authorization obtained in the application and signing the Informed Consent Form.

The closed questions covered the age of the participants, the diagnosis of cancer, marital status, use of a vaginal dilator (silicone device, in the shape of a penis, offered by the nurse to women, for vaginal dilation after brachytherapy, in general, appointed by the nurses of the CEPON and patients with vaginal prosthesis) and maintaining sexual intercourse. The open questions considered as triggering to obtain the narratives were “Could you tell us what reactions, or side effects, occurred to you during brachytherapy? What care has been directed by nurses and other professionals that you have performed or are performing? What care do you indicate to be addressed in nursing consultations and included in the educational booklet that will be built by CEPON nurses and that will be delivered to the women who are going to start brachytherapy? Would you have any other recommendations?

The obtained communications were submitted to content analysis.[13] Thus, after exhaustive reading, were identified the units of records. The codes of the registration units were defined by

terms representative of the meanings expressed. Enumeration rules were applied to the data investigated in the closed questions.

Sequentially, we grouped the units of records by similarity to construct the thematic categories. The stage of codification and categorization of communications was carried out by two coders between March and May 2019. For data interpretation and inference, reflexive and critical analysis of the results was carried out, supported by updated scientific knowledge published in the scientific community about the topic.

This study was conducted according to the ethical standards required by Resolution 466/2012 of the National Health Council. The ethical approval for its development is registered under the opinions nº 2730286 (proponent - date of approval 06/22/2018) and nº 2798839 (co-participant - approval date 08/03/2018). We guaranteed the anonymity of the participants by alphanumeric coding - the acronym MSB (Woman Undergoing Brachytherapy), followed by a sequential Arabic number (MSB1 to MSB12).

Results

We included 12 women, between 33 and 74 years old (mean of 54 years old), seven with a diagnosis of cervical cancer and five with an endometrium cancer; most of them were married or in a in a common-law marriage (eight women). Regarding the use of the vaginal dilator and maintenance of sexual intercourse, all participants reported using the dilator two to three times a week, and eight women did not have sexual intercourse.

From the content analysis, three thematic categories emerged: Care oriented and adopted by women in pelvic brachytherapy; Immediate side effects perceived by women in pelvic brachytherapy; Care not guided by health professionals. These thematic categories are presented sequentially.

Care oriented and adopted by women in pelvic brachytherapy

This thematic category consisted of the women's reports verbalizing the care oriented by nurses and other health team professionals, during the period of pelvic brachytherapy, for adoption in self-care practices, during and after the end of treatment. The care provided by nurses and most reported by women (reports from six women) were: use of a vaginal dilator; use of the vaginal shower with the application of chamomile tea; consumption of stone-breaking tea (hydration and diuretic action to prevent urinary changes); use of vaginal lubricant; cleaning and storage of the vaginal dilator.

Other care oriented and revealed by the participants included: daily water intake of 2 liters or more; holding a sitz bath with chamomile tea; maintenance or interruption of sexual intercourse during brachytherapy; maintenance of sexual intercourse after the end of treatment and its benefits; use of lubricated condoms; hygiene of the body before brachytherapy; use of mineral oil and laxative in cases of constipation; use of topical medication to treat lesions of the skin and mucous membranes; use of suppositories with corticosteroids; use of medication to control urinary stinging; communication of perceived changes to the health team; rest (in the presence of fatigue); performing a daily physical activity for 30 minutes, such as walking; exposure to sunbathing for 30 minutes daily (before 10 am and after 4 pm):

> *Ah, I was told to use the prosthesis* [...] *I used it every other day, and I continued with the bath,* [...] *because the doctor said it would be good to do more bathing, an internal bath with the shower. I had a shower for a long time and I had no problem.* [...] *I pass the boiling water and use a condom on the penile prosthesis* [...] *I have to use the one that does not have latex, because I have a latex allergy, and I use oil* [referring to the use of vaginal lubricant]. (MSB1)

> *I made tea, I was instructed to make chamomile tea and it was easy to maintain sexual intercourse. Ah, they [nurses] gave me one* [...] *I can't even tell you the name* [...]. *They gave me a gynecological shower, so I put the tea in there and did the vaginal washing, very calmly. I was also told that I was*

> *going to feel good about the tea, so I could pee afterward. So, it helped me a lot, I felt very relieved.* (MSB2)
>
> [...] *if you had any burning or diarrhea, vomiting, these things were to warn you.* [...] *Do physiotherapy at home* [...]. *They gave me the prosthesis here at the hospital and I did it at home and I do it, sometimes, three times a day. I am not having sex, I am separated.* [...] *I used the shower, I already wash it under the shower, everything is fine and I put it in a bag and keep it in the box again and the prosthesis is the same thing, I wash it under the shower, there are days that I drink alcohol, there are days that put serum.* (MSB3)
>
> *Enough hydration, water? Natural, normal, a lot of chamomile tea for bathing, I also used a lot of stone-breaking tea, to pee a lot* [...] *I used the prosthesis with a lot of lubrication, even gel, I also used the creams a lot indicated to relieve dryness of the skin.* [...] *I took pyridium because the tea could be a little longer, I continued with tea, but I took one, two, three weeks in a row, and now I have been using a suppository, which is corticosteroids* [to treat bowel injuries]. (MSB4)
>
> [...] *not to do heavy work at home, to walk a little in the sun, just half an hour.* (MSB5)
>
> *Yes, I use a vaginal cream, that "KY".* (MSB6)
>
> *Condom and gel. I wash [the penile prosthesis], keep it, wash only normal water. Then, I put it in the package she gave me. I always keep it there, just use it, wash it, and keep it.* (MSB7)

Comparing the reports of the participants with the clinical practice, we observed that the care oriented and most adopted by women refer to the guidelines offered by nurses at the end of the discharge from treatment, except for the consumption of tea, highlighted since the first consultation of at the beginning of treatment.

Immediate side effects perceived by women in pelvic brachytherapy

This category groups the side effects that occurred during and after the 45 days after the end of brachytherapy. The most frequent side effects were: intestinal changes, such as constipation, diarrhea, urgent evacuation; dryness and hyperemia of the skin; vaginal dryness; inflammation of the vaginal, anal and rectal mucosa; and dysuria. Other side effects revealed in the participants' narratives included vaginal bleeding; abdominal and vagina pain; abdominal colic during the removal of brachytherapy instruments; anemia (requiring blood transfusion):

> [...] *difficulty to poop, I always have to be using Dulcolax and mineral oil and if I don't take it, I feel terrible and I have pain in my belly. Doing the treatment with Dulcolax and taking the oil and a lot of vegetables and then I poop.* [...*/ it burned there in the anus, in the vagina* [...] *the doctor examined me, I even had to use an ointment to get better, because it was a lot of pain and even bleeding.* [...] *I felt a lot of pain when taking the device out.* (MSB1)

> *The area becomes dry* [referring to the vagina]*, it hurts a little, but it is bearable. At the entrance of the anus, a dryness, and even a few wounds, some bruises, but over time we will be treating and relieving and helping a lot.* (MSB4)

> *I had a lot of* [urinary] *burning in the first weeks, I had four brachytherapy sessions, in the third, I had to do a blood transfusion because my leukocytes were very low.* (MSB5)

> *Ah, the intestine until today practically locked, I sometimes take a little medicine, but* [...] *I go once, twice, then I don't need it, but sometimes I feel very much, it seems that I have to run to the bathroom, and I get there a little bit. The urinary part is even normal, so it hurts a little underneath, you know?* [...] *I have a little vaginal dryness and pain during exercise [vaginal dilation]. Even I talked to the doctor, now, he said it is to use the prosthesis a lot because it is already atrophying.* (MSB6)

The side effects presented here configure the main toxicities expected in the context of cancer care in brachytherapy, and the nursing care implemented at CEPON is strongly directed towards the prevention of this symptomology.

Care not guided by health professionals

This category is the report of a participant who reported not receiving guidance on painful perception during brachytherapy, waxing to be performed before the start of brachytherapy, and guidance for vaginal dilation after the end of brachytherapy. Below is the testimony that reveals care not guided by professionals in the perception of the participant. Other reports do not exist:

> *The only advice I did not receive, which I did not do, was on waxing. Then the doctor complaint. Nobody told me anything* [...] *the only question I had, was that I received the prosthesis and did not receive guidance on how to use it. Then, I was called in physio* [...] *I arrived, my God* [...] *how am I going to use this now? Then, two days later, I already talked to Fisio, then she instructed me to use the prosthesis. And I do normal lying, ready, 20 minutes.* [...] *she said that this is common* [...] *so, she should have been guided, that maybe it would be a little more complicated.* [...]. (MSB1)

Regarding the questioning about what recommendations should be addressed in nursing consultations and included in the educational booklet, the reports of 11 participants revealed that they had no new suggestions, as they considered that the guidance provided by the CEPON nurses was adequate and that the booklet should replicate their actions. However, one participant revealed some care that was not directed by the nurses and recommended that a similar situation be avoided.

Discussion

The participants' ages fluctuated significantly as shown in the results. However, the average age (close to 50 years old) is similar to the surveys carried out in the United States of

America[15] and in the study scenario[14] which pointed out that those with gynecological cancer had an average of age, respectively, 55 and 51, 53 years old. Cervical cancer, the most incident topography among gynecological cancers, is rare up to 30 years old, but its incidence increases progressively in the range of 45 to 50 years old.[15]

Also, regarding the variability of the ages found, associated with the research previously carried out at CEPON,[14] the diagnosis of the disease was identified at early and late ages in women assisted in this care setting, which reinforces the need for screening programs for early detection of non-neoplastic lesions in primary care and medium complexity.

Screening for cervical cancer, at least once in life, after the age of 35, decreases the risk of dying by 70%. If the woman is screened every five years, this risk decreases to 85%. But unfortunately, about 1.5 billion women worldwide have never been screened for cervical cancer.[16] Such a condition explains the high incidence of cervical cancer and related deaths. As for the diagnoses of the participants' malignant neoplasms, these replicate the findings of other studies, which point to the cases of cervical and endometrial cancer as the most incident types among gynecological cancers.[1,14]

Discussing the results obtained with the application of closed questions from the interviews, we observed that the care performed after brachytherapy about the vaginal dilation shows the follow-up of the nurses' guidelines. However, in the clinical practice of CEPON until 2015, we observed that some women had difficulties in adhering to this practice.

To change this reality, patients should periodically consult with the physiotherapist (action instituted in 2016) in the follow-up of cancer control. In this consultation, the benefits of vaginal dilation are reaffirmed in a thorough dialogue, complementing the clarifications initiated by the nurse upon discharge from brachytherapy. Also, the pelvic floor is evaluated, the vaginal depth is checked, and the vaginal stenosis is classified, among other aspects evaluated. This practice raises women's awareness of the importance of preventing this side effect.

Studies point out that women have difficulties in including dilation exercises to prevent vaginal stenosis continuously.[8-9,17] Thus, the findings of this investigation differ from those of other studies.[8-9,17] This achievement is related to the presence of exclusive nurses to work at the CEPON Brachytherapy Outpatient Clinic, the performance of the nursing consultation before, during, and at the end of the therapy, and the periodic follow-up with the physiotherapist.

At CEPON, a survey of 84 women after brachytherapy found 41.7% adherence to the use of a vaginal dilator in the shape of a silicone penis. Research also shows that women who underwent vaginal dilation, as recommended, had a lower degree of vaginal stenosis when compared to those who did not. [18]

In recent years, empirically observations showed that the percentage of adherence to vaginal dilation has been increasing, that the difficulties for this adherence include shame in the use and shape of the penile prosthesis, the discomfort felt when introducing the device in the vaginal canal, and the belief that maintaining sexual intercourse is sufficient.

As for the findings in the open questions, the narratives, gathered in the category “Care oriented and adopted by women in pelvic brachytherapy”, revealed the diversity of self-care practices. When comparing the findings of the participants 'communications with the CEPON nurses' guidelines,[16] we identified that much-oriented care was not mentioned by the women.

The anxiety that some participants feel with an interview may have influenced this finding or the narratives may represent the choice of women of choice for the care they wish to follow, regardless of the professional recommendation. This choice constitutes a common practice for people when defining their care itineraries. However, the results also suggest that there may be a need to review the standardization of nursing guidelines and supplement them with educational material. The review of nursing practice and the development of educational material can, for example, contribute to the elimination of complaints, regarding the

verbalization of a participant who did not receive any instructions from nurses, as recorded in the results of this study, in the category "Care not guided by health professionals".

We noted that the main recommendations for care for women in pelvic brachytherapy, pointed out by CEPON professionals and other studies, including guidance on the anatomy of female genital organs, brachytherapy, and its side effects, care to prevent or minimize them, scheduling follow-up appointments with nurses, physiotherapist, gynecologist, oncologist, radiotherapist, sexual and psychological counseling, evaluation by a psychologist and/or sexologist, when necessary.[6,8,16-17] The participants did not mention this care.

To prevent and control the immediate or late sequelae of brachytherapy, women are recommended to not use vaginal creams that are not indicated by the health team; communication of changes perceived/felt by the woman to the health team; removal of pubic hair before the start of treatment; fasting for 8 hours (before the procedure) for women undergoing treatment under anesthetic induction; the presence of a companion; water intake of 2.5 to 3 liters of liquid per day; adoption of healthy eating; skin and mucous membrane care; pain assessment and control; guidance on sunbathing, sea and pool.[6,8,16-19] Of all these, only the communication of the perceived changes and the recommended water intake were mentioned by the participants.

Care related to the prevention of vaginal inflammation and vaginal stenosis is also recommended, such as using a gynecological shower with chamomile tea once a day; vaginal dilation with the use of silicone penis or vaginal dilator, on average, two to four times a week, for 5 to 10 minutes, beginning these exercises after the end of brachytherapy when the inflammatory response has reduced; return to sexual activity about a month after the end of brachytherapy, when there is a reduction in the inflammatory response; use of vaginal lubricant and condom during sexual intercourse and/or vaginal dilation, indefinitely, and the frequency of use of dilation exercises may be reduced if the woman maintains effective sexual relations; use

of Vaseline tampons (tampons covered with Vaseline) inserted overnight in the vaginal canal, two to three times a week and for at least 9 to 12 months after the end of treatment.

The monitoring of emotional and sexual changes related to early menopause and infertility, the evaluation and classification of vaginal stenosis are still recommended.[6,8,16-19] Most of the care presented here was revealed by the participants, showing the greatest concern with the prevention of vaginal stenosis or, even, that this care may be highlighted in the guidelines of nursing and physiotherapy.

It is evident the need to review the approach of women in brachytherapy in the study scenario to acquire knowledge for good self-care practices and changes in the health education process developed by professionals. Also, comparing the care provided by nurses at CEPON[19] with the recommendations of the scientific literature,[8,9,20] we found that most of them are part of professional practice. The unfulfilled instructions include the use of petroleum jelly, guidance on infertility and early menopause, and referrals to sexologists. Therefore, it is suggested to include them in the health care provided.

As for the side effects revealed by the participants, presented in the category "Side effects perceived by women in pelvic brachytherapy", they endorse the need for preventive care and professional actions to reduce dysuria, intestinal changes, and lesions on the skin and anal, rectal and vaginal mucous membranes. The consequences reported by them are related to the immediate reactions, because, as they were interviewed about 45 days after the end of brachytherapy, we did not investigate the late impacts. The findings of this investigation, concerning the side effects that make up the aforementioned thematic category, are similar to the evidence from other studies,[11,21-23] except for the gastric changes, which were not mentioned by the participants.

Research shows that 21.2% of women in pelvic brachytherapy have toxicities, 17.3% in the gastrointestinal tract and 10% in the genitourinary and that the estimated toxicity rate over

three years is 24.2%. The average duration of follow-up was 37 months (range 3-146 months).[21] The factors associated with toxicities were lower body mass index, white race, active smoking during treatment, diabetes, size of ovoids used in the treatment. radiation and duration of treatment.[11,21]

A review study that includes 87 publications and that analyzed the immediate and late toxicity of women undergoing brachytherapy presents the following degrees of acute toxicities: genitourinary system: Grade 2: 1-54%, Grade 3: 1-3%, and Grade 4: 0%; toxicity linked to chemoradiation: Grade 2: 2-53%, Grade 3: 1-3% and Grade 4: 0%. Acute gastrointestinal toxicity: Grade 2: 15-48%, Grade 3: 3-11% and Grade 4: 5%; toxicity linked to chemoradiation: Grade 2: 5-62%, Grade 3: 1-25% and Grade 4: 1-2%. It also points out that the acute effects are characterized by genitourinary symptoms, such as cystitis, urethritis, hematuria, dysuria, increased risk of urinary tract infections; and gastrointestinal symptoms, such as the risk of bleeding, pain, mucus, irregular bowel habits, food intolerances, nausea, and vomiting.[22]

Another investigation carried out in the national territory corroborates these findings, stating that the most frequent immediate toxicities are radiodermatitis and those that occur in the gastrointestinal and genitourinary systems. It also points out that the general health status is correlated with the age group.[23] These immediate side effects and those that should appear later, in the late phase, significantly change the way of life of these women. In this perspective, what is pointed out in the scientific evidence needs to be visualized in the daily lives of these women. Urinary and intestinal urgency, pain to urinate, pain and bleeding in the vaginal canal or during sexual intercourse alter social and sexual relationships, social roles, the way a woman sees herself, and the quality of life.

Research carried out in Africa, which evaluated the quality of life of women, shows that, despite an improvement in the global health status, cervical cancer and its treatment had a negative influence on the quality of life of women and caused changes in all domains of their

lives. Social functioning was the most affected and did not improve significantly over time. During treatment, financial difficulties negatively influenced quality of life, as well as urinary frequency and insomnia present, and these symptoms started before diagnosis and remained even after the end of treatment; in addition to edema in the lower limbs.[24]

Edema, in general, results from surgical resections of lymphatic chains or changes caused in these lymphatic chains by ionizing radiation or, also, by neuropathy that can arise as toxicity resulting from chemotherapy or chemoradiation. In this context, nurses must assume a role that integrates the provision of care and health education for self-care as an essential tool in the treatment of women with gynecological cancer in brachytherapy.

The nursing consultation in the context of brachytherapy allows greater interaction of the professional, better decision making and understanding of the treatment by the patients, which influences the adoption of self-care practices and better-desired health status,[9,25-26] collaborating to reduce fears, anxieties, and ignorance.[27] Misinformation is a source of fear and insecurity, harmful to the psychological health of women and which can negatively contribute to co-responsibility in health.[28] We found that it is up to the nurse in nursing consultation to minimize fear, insecurity, and ignorance.

Finally, the role of each professional in the multi-professional team is essential for the better quality of life of women with gynecological cancer in brachytherapy, since the sum of the actions, including assessment and guidance, expands the range of care that must be offered during treatment. After the treatment is completed, health controls with the attending physicians are essential. However, the continued follow-up in short periods with the physiotherapist contributes to the woman's quality of life, with emphasis on sexual health, prevention of lymphedemas, control of intestinal changes, and urinary disorders.

As a limitation of the research, we observed that we investigated a single scenario. However, as it is a qualitative approach, the method is replicable and the results presented here

are relevant and reveal what, commonly, is observed in the clinical practice of professionals working in this area of interest.

Conclusion

The side effects revealed by women in their narratives include gastrointestinal, genitourinary changes in the skin and mucosa (vaginal, anal, and rectal). Regarding the care taken by women, the prevention of vaginal stenosis (use of a vaginal dilator in the shape of a silicone penis, vaginal lubricant, cleaning, and prosthesis storage) was highlighted, followed by care related to the control of vaginal inflammation (use of vaginal bath with chamomile tea) and dysuria (ingestion of stone breaker tea).

The results of this study allowed the development of an educational booklet to complement health education carried out by nurses in their consultations at CEPON. Also, nursing planning for the consultation is being discussed by the team.

The results also reinforced the relevant role of the nursing consultation and the physiotherapist for better cancer care and quality of life during and after the end of treatment. Considering the nature of the study, the late side effects have not been investigated. Therefore, we recommend further investigations to contemplate this context.

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