

Psychosexual health in gynecologic cancer

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Abstract

More people are living with the long-term effects of cancer owing to improvements in cancer treatments and an aging population. Many people diagnosed with cancer report a negative impact on sexual identity, sexual functioning, and their sexual relationship. Gynecologic cancer survivors are often the most severely affected. These cancers involve cancers of the ovaries, uterus, cervix, vagina, and vulva. The impact of these cancers on sexual health results not only from the disease process itself, but may also be due to the necessary treatments required. These can have a profound impact on psychological, physiological, and social well-being both in the short and long term, which may result in negative impact on the quality of life of the patient as well as her partner. Although most patients express that they would like to be more informed about sexual health and would like to have the opportunity to discuss these issues with their therapeutic team, sexual health is often not discussed with the patient.

KEYWORDS

FIGO Cancer Report; Gynecologic cancers; Quality of life; Sexual functioning; Sexual identity

1 | INTRODUCTION

Improvement in cancer treatments means that the long-term survival of cancer patients has increased. This, coupled with an aging population, is resulting in more people living with the long-term effects of their illness. Many people who have had a diagnosis of cancer report a negative impact on sexual identity, sexual functioning, and their sexual relationship, with gynecologic cancer survivors often the most severely affected.¹ Gynecologic cancers involve cancers of the ovaries, uterus, cervix, vagina, and vulva. The impact of gynecologic cancers on sexual health results not only from the disease process itself but may also be due to the necessary treatments required, which can have a profound impact on psychological, physiological, and social well-being both in the short and long term. This can have a detrimental impact on the quality of life of the patient and her partner. Sexual health is often not discussed with the patient, even though most patients express that they would like to be more informed and have the opportunity to discuss these issues with their therapeutic team.¹

2 | SEXUAL HEALTH

According to the current working definition, sexual health is defined by the WHO as: "...a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled."²

3 | PREVALENCE

In 2012, it was estimated that over 3 million women were living with gynecologic cancers globally.³ In the general population, female sexual problems are highly prevalent and affect up to 43% of women.^{4,5}

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Masters and Johnson⁶ represented the human sexual response as a linear process of distinct phases of excitement, arousal, orgasm, and resolution. This model was further modified into a three-phase model of desire, arousal, and orgasm.⁷ The sexual response has recently been described as a nonlinear circular response cycle of overlapping phases.⁸ This is a more complex model and considers emotional and relational factors as well as external and cognitive sexual stimuli.

Sexual dysfunction refers to problems involving different phases of the sexual response cycle, namely interest/arousal, orgasm, and sexual pain/penetration disorders, which cause distress.⁹ In gynecologic oncology patients, sexual dysfunction has been reported to be as high as 90%,¹⁰ with an associated impact on psychosocial adjustment and quality of life.¹¹ The effect on sexual functioning affects gynecologic cancer patients immediately following treatment¹² and during long-term survivorship.^{1,13}

4 | DISCUSSION OF SEXUAL IMPACT

Despite the high prevalence of sexual dysfunction, attention is rarely paid to sexual health issues. In a study of gynecologic cancer survivors, 74% of survivors believed that physicians should discuss sex, while 62% reported never discussing the effect of genital tract cancer on sexuality.¹ A survey of gynecologic oncologists revealed that less than 50% routinely asked patients about sexual health, and 80% felt that there was inadequate time to address sexual health concerns.¹⁴

In addition, research suggests that healthcare providers may feel uncomfortable discussing sexual health issues. Reasons may include: (1) a lack of training and skills to deal with patient concerns; (2) embarrassment when talking about sex; (3) concern about offending or embarrassing the patient; (4) underestimating the prevalence of sexual dysfunctions; and (5) underestimating the impact sexual complaints have on a patient's health and well-being.¹⁵

A common definition of survivorship is the process of living with, through, and beyond cancer. By this definition, cancer survivorship starts at initial diagnosis and comprises individuals who continue treatment, those who are focused on reducing the risk of recurrence, and those living with chronic disease.¹⁶ It is essential for the care of gynecologic cancer patients that sexual health issues encountered during treatment and survivorship by patients are understood, evaluated, and treated.¹⁷

5 | IMPACT OF GYNECOLOGIC CANCERS ON SEXUAL HEALTH

The impact of gynecologic cancers on sexual health is multifactorial, with etiology dependent on psychosexual and biological factors.

Psychosexual factors may be dependent on the age of the patient at diagnosis (younger patients have a worse outcome with greater impact on sexual identity), premorbid personality and sexual well-being, or existence of pre-existent psychological/psychiatric problems. The type of cancer and the treatments required may impact on sexual

identity, body image, and body feelings. Depression may occur, resulting from the diagnosis of a life-threatening condition or an increase in inflammatory markers because of the disease process itself. These may increase following treatment, often causing sleep disorders and fatigue.¹⁸ There may be a socioeconomic impact, with gynecologic cancer survivors experiencing greater unemployment than healthy women or less likely to return to their job than other cancer survivors.¹⁹

Biological factors may be cancer dependent (location, histologic type, stage, and recurrences if any) and treatment dependent. Treatment may involve surgery (conservative or radical), radiation, and chemotherapy. In general, the more radical the surgery, the greater the probability of sexual dysfunction. Complaints following surgery may include vaginal shortening, vaginal dryness, dyspareunia, orgasmic difficulties, lymphedema, and bladder and bowel comorbidities. The effects of radiotherapy are insidious causing scarring of irradiated tissues with progressive shortening and stenosis of the vagina, which may completely prevent penetration. Chemotherapy, often in combination with surgery, leads to fatigue, hair loss, skin changes, weight changes, nausea, and diarrhea, with profound effects on body image and sexual identity. Resultant comorbidities that may further impair sexual functioning need to be considered and addressed, including, among others, iatrogenic menopause and infertility.¹⁸

6 | SEXUAL DIFFICULTIES ARISING FROM THE TREATMENT OF DIFFERENT TYPES OF GYNECOLOGIC CANCERS

6.1 | Cervical cancer

Cervical cancer is the most common gynecologic cancer worldwide. North American statistics show that many patients with cervical cancer are diagnosed in their reproductive years, with 49 years the median age of diagnosis and over 38% diagnosed under age 45.²⁰

The surgical treatment of early-stage cervical cancer can include cervical conization, trachelectomy, simple hysterectomy, or radical hysterectomy with pelvic lymphadenectomy.

Radical hysterectomy can result in negative effects on sexual health and quality of life,²¹ which can be short term or long term in duration. Some short-term effects on sexual health include orgasmic problems, vaginal shortening, dyspareunia, lymphedema, genital numbness, and sexual dissatisfaction,²² with persistent sexual health concerns including lack of sexual interest (25%), lymphedema (19%), genital numbness (71%), and insufficient lubrication (24%).²²⁻²⁴ Compared with traditional radical hysterectomy, nerve-sparing radical hysterectomy has a better outcome for short- and long-term bowel and bladder function, less postoperative complications, and improved sexual function.²⁵

Radical trachelectomy is a fertility-sparing surgical option for some women with early-stage cervical cancer who have not completed childbearing. In a small study, patients who underwent radical trachelectomy reported worsening of arousal, lubrication, orgasm, and pain, which showed significant improvement at 6 months.²⁶

Radiation therapy in combination with or without concurrent chemotherapy (chemoradiation) plays a crucial role in the treatment of

cervical cancer both in the primary and adjuvant setting. Radiation therapy can result in adverse effects namely vaginal stenosis, shortening, atrophy, fibrosis, and pain with intercourse.^{27–30} When compared with surgery alone, primary or adjuvant radiation therapy has been associated with greater sexual dysfunction and vaginal complications.^{21,31} The combination of surgery and radiation is found to result in increased vaginal shortening compared with radiation alone.¹²

6.2 | Ovarian cancer

The majority of ovarian cancer patients present with advanced-stage disease that requires radical surgery. Treatment consists of surgery and chemotherapy, with surgery involving hysterectomy, bilateral salpingo-oophorectomy, omentectomy, lymphadenectomy, and tumor debulking either before or after chemotherapy. Compared with healthy women, ovarian cancer survivors report increased vaginal dryness, more dyspareunia, less sexual activity, and lower libido.³² Removal of the ovaries results in hormonal changes that can cause adverse effects on sexual health.³³ The resultant menopausal symptoms can be abrupt and intense and if not managed, can result in diminished quality of life and sexual desire.³⁴

6.3 | Endometrial cancer

The majority of endometrial cancers occur in postmenopausal women and surgery is the primary treatment for most patients, which includes hysterectomy, bilateral salpingo-oophorectomy, and surgical staging with selective pelvic and para-aortic lymphadenectomy. Surgery may be performed by laparoscopy, which has improved postoperative recovery. One study showed that women who had surgery for endometrial cancer had no differences in their own sexual experience postoperatively but had significantly more sexual difficulties when compared with healthy controls.³⁵

6.4 | Vulvar cancer

Vulvar cancer is treated by broad local excision, hemi or total vulvectomy, with unilateral or bilateral inguinal lymphadenectomy. The sentinel lymph node procedure is used to reduce morbidity and improve quality of life. Vulvar malignancy is affecting younger women with high-risk HPV infection. Women with vulvar cancer may have experienced sexual difficulties with distressing vulvar symptoms and bleeding for many years. Due to the effects of treatment, they may still suffer severe dyspareunia and body image distortion. Although a recent study found no differences in psychosocial and sexual functioning before and after vulvectomy, it was acknowledged that women with vulvar malignancy are at high risk of sexual problems compared with healthy controls.³⁶ A recent study on the long-term impacts of surgery for vulvar cancer revealed that following surgery, women experience significant adverse effects—pain and fatigue in particular. These are typically unresolved at 12 months after treatment and worse than at pretreatment. There were also key areas of health-related quality of life that significantly

deteriorated over time (physical, social, and sexual functioning) and were also unresolved at 12 months.³⁷

7 | SEXUAL REHABILITATION

Sexual dysfunction in gynecologic cancer survivors is often multifactorial and best managed using a multidisciplinary approach.³⁸ It is important to avoid the “collusion of silence.” Women often feel ashamed and embarrassed to speak about sexual issues with their healthcare provider. Before surgery, the impact on sexual function should be explained to the patient.¹⁸ This intervention can be a major predictor of post-treatment adjustment.¹ All treatment modalities should be used. Many women who ask for solutions to their sexual concerns receive a lubricant, which is not enough to rehabilitate the genital tract.¹⁸ In most cases, local estrogen can be used and dilators should not be forgotten.

To help improve quality of life, sexual function, and reduce associated distress of patients, it is important to identify which patients may be suffering from sexual health issues. To do so, it is important to assess sexual function at regular intervals. It may be necessary to assess sexual functioning prior to the diagnosis of cancer, current sexual functioning, and any changes to sexual health and the impact on the relationship experienced due to treatment.¹⁷ The Brief Sexual Symptom Checklist for Women is a useful screening tool and is recommended.³⁹

8 | TREATMENT

8.1 | Preventative

If possible, preventative strategies during surgery should be adopted. These may include—wherever feasible and appropriate—identifying the sentinel node to enable more limited lymph node dissection to prevent lymphedema, nerve-sparing techniques to preserve sexual function, and ovary conservation to prevent premature menopause.

8.2 | Rehabilitation

8.2.1 | Physical rehabilitation

Menopause may occur spontaneously or may be due to the various forms of cancer treatment (chemotherapy, radiation, or bilateral salpingo-oophorectomy). The sudden change can result in severe vasomotor symptoms, disruptive sleep patterns, cognitive issues, painful joints, genitourinary syndrome of menopause, and sexual dysfunction. The use of hormone therapy, either estrogen alone or in combination with progestogen, for gynecologic cancer can be a safety concern for patients and providers alike. It has been found, however, that universal fears about hormone therapy-related recurrence risk and decreased survival are not uniformly evidence supported.³⁸ Although hormone therapy for women should be avoided

in the setting of some gynecologic cancers, it can often be used safely in many. Maintaining quality of life for cancer survivors includes reducing the physical and psychological impact of cancer. Treatment of vasomotor symptoms and genitourinary syndrome of menopause with hormone therapy can ease the impact of cancer and its treatment on quality of life.

The use of low-dose vaginal estrogen either in the form of creams, tablets, or rings reduces the symptoms of vaginal atrophy with minimal increase in serum estrogen levels found.⁴⁰ Hormone therapy should begin soon after surgery.¹⁸ It is advisable to discuss the risks, benefits, any alternatives, and the expert opinion of the treating oncologist with the patient.

Vaginal dryness can be a major concern, causing pain with intercourse and discomfort and pain during gynecologic examinations.⁴¹ If the use of vaginal estrogen is not advisable, lubricants and moisturizers are effective at reducing discomfort and pain during intercourse for women with mild to moderate vaginal dryness. Both lubricants and moisturizers help to decrease the friction associated with thin, dry genital tissue that can occur as a result of vulvovaginal atrophy/genitourinary syndrome of menopause. There is a difference between how lubricants and moisturizers have their desired effect, however, as well as how they should be used. There are many different types of lubricants. They may be water-, silicone-, mineral oil-, or plant oil-based, and should be applied to the vagina and vulva (and the partner's penis if required) prior to sex. Short-term relief from vaginal dryness may be achieved and related pain during sex is reduced. They are beneficial for women whose vaginal dryness is a concern only or mainly during sex.⁴²

Vaginal moisturizers act by rehydrating dry mucosal tissue. They are absorbed into the vaginal skin and adhere to the vaginal lining to act more like natural vaginal secretions. Vaginal moisturizers are specifically used for the nonhormonal reduction of vaginal dryness/atrophic vaginitis/vaginal atrophy. It is necessary to apply regularly (every day to once every 2–3 days). The longer relief of symptoms occurs because of a change of the fluid content of the endothelium and lowering of the vaginal pH. Vaginal moisture and acidity are maintained. They provide relief not only for women with symptoms of vulvovaginal atrophy/genitourinary syndrome of menopause that result in pain during sexual activity, but also for women who are not necessarily sexually active but experience day-to-day discomfort.⁴²

For patients with urogenital atrophy because of cancer treatment, the choice of a lubricant that is physiologically most similar to natural vaginal secretions (i.e. a “body identical replacement”) is preferable. This can be used alone when hormone replacement therapy is not recommended, or in combination with topical estrogen if atrophic changes still cause discomfort. For daily comfort, it is preferable that a paraben-free vaginal moisturizer with acidic pH and osmolality below the WHO ideal recommendation of 380 mOsm/kg be used.⁴²

Ospemifene is an oral selective estrogen-receptor modulator that has been shown to improve vaginal health.⁴³ It is currently the only US Food and Drug Administration-approved, non-estrogen, oral pill for moderate to severe dyspareunia caused by vulvovaginal atrophy

in postmenopausal women; however, further investigation in cancer populations is needed.

Regular sexual activity has great benefit in preventing vaginal atrophy. Use of a dilator, with or without a vibrator, to prevent vaginal stenosis from pelvic radiation and to maintain vaginal health is often recommended, although compliance is often poor. Special attention should be given to careful instructions on the proper use of dilators. A physiotherapist or specifically trained nurses can perform a critical role in pelvic floor rehabilitation. Physiotherapy often includes relaxation exercises, biofeedback, intravaginal trigger point therapy, massage techniques, and pelvic floor strengthening, which can result in a significant reduction in pain with intercourse and improved overall sexual function.⁴⁴

Carbon dioxide laser therapy has been proposed to treat genitourinary syndrome of menopause resulting from treatment-induced menopause in oncology patients. Preliminary results are promising but further research is required and ongoing.⁴⁵

Lifestyle adaptations may be recommended, with attention to optimal weight, physical exercise, adequate sleep, and healthy diet including limiting alcohol and avoidance of smoking as important considerations.

8.2.2 | Psychosexual rehabilitation

The psychological, interpersonal, and sociocultural factors contributing to sexual dysfunction, including fear of cancer recurrence, anxiety, depression, concerns about body image, sexual pain, and relationship factors may require the intervention of a sex therapist or psychologist with special interest or training in this area. Studies have noted the success of brief psychosexual interventions. Mindfulness training incorporated in a psychoeducational program for women with arousal disorder due to gynecologic cancer has been effective in preliminary studies.⁴⁶

If the patient is in a relationship, couple rehabilitation is an important consideration. Cancer is in fact a “relationship disease”; whether in a heterosexual or homosexual relationship, a patient never has cancer alone. Her partner may be emotionally, physically, financially, or sexually affected by the cancer. Sexuality is a relationship issue. Sexual problems will have an impact on the patient, on the partner, and on the relationship. In sexual rehabilitation in the context of cancer, “the couple” should be regarded as “the patient”.⁴⁷

For effective treatment of sexual difficulties in cancer patients, coordinated provision of information, support, and symptom management should preferably be provided, which may require a multidisciplinary approach with the focus on the physical and psychosexual aspects of sexuality.⁴⁷

AUTHOR CONTRIBUTIONS

RB designed, planned, and wrote the manuscript. SG reviewed, augmented, and edited the manuscript.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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