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Review

Sexuality and intimacy after gynecological cancer

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ABSTRACT

Matters of sexuality and intimacy greatly impact quality of life of patients with gynecologic cancers. Vast amount of evidence exists showing that cancer dramatically impacts woman's sexuality, sexual functioning, intimate relationships and sense of self. Sexual functioning can be affected by illness, pain, anxiety, anger, stressful circumstances and medications. There is a growing acknowledgement that these needs are not being appropriately addressed by providers.

With improvements in early detection, surgery and adjuvant therapy for gynecologic cancer, long term survival and cure are becoming possible. Quality of life is thus becoming a major issue for patients. Patients suffer from hot flashes, difficulty sleeping, loss of libido and intimacy, all resulting in significant morbidity and loss of quality of life. Using hormone replacement therapy in gynecologic cancer survivors is a topic a great debate.

While limited studies are available to date, retrospective cohort reviews show no reported differences in overall or disease-free survival in patients using hormone replacements vs. controls in patients with ovarian cancer, endometrial cancer, cervical, vaginal or vulva cancer.

Since safety of using HRT remains controversial and prospective studies are lacking, providers need to be able to provide alternatives to HRT. Centrally acting agents such as antiseizure agent gabapentin and selective serotonine re-uptake inhibitors, such as venlafaxine and fluoxitine have been demonstrated to show effectiveness in treating vasomotor symptoms and are easily tolerated. To address cardiovascular and osteoporosis risks of post-menopausal status, exercise, healthy diet, bisphosphonates, raloxifen and statins have been found to be effective.

Psychotherapy plays an essential part in management of these issues. Review of the literature reveals recent trends among health psychologists to utilize psychoeducational interventions that include combined elements of cognitive and behavioral therapy with education and mindfulness training. Intervention studies have found positive effects from this approach, particularly within the areas of arousal, orgasm, satisfaction, overall well-being, and decreased depression.

Many of patients' issues are easy to address with either hormonal, non-hormonal or psychotherapy modifications. The essential part of success is the providers appreciation of this serous problem and willingness and comfort in addressing it.

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Cancer impacts sexuality and intimacy both during and after therapy. Although the diagnosis of any cancer may have this effect, gynecologic cancers also directly act on a woman and her partner's sexual beings. Sexual functioning can be affected by illness, pain, anxiety, anger, stressful circumstances and medication. Vast amounts of evidence exist showing that cancer dramatically impacts woman's sexuality, sexual functioning, intimate relationships and sense of self [1,2]. There is a growing acknowledgement that these needs are not being addressed by providers [3,4]. Stead et al. in a qualitative study described that most women with ovarian cancer interviewed thought that a health professional should provide written information or discuss sexual issues with them. Instead, no patient received written information, and only two received brief verbal information [5].

The success of gynecological cancer prevention in addition to great strides in early identification and successful medical and surgical treatment has allowed gynecologic oncologists and health psychologists to focus efforts on quality of life after diagnosis and treatment. Nationally recognized cancer hospitals, including our affiliated institution, have begun to recognize the importance of having a health psychologist as a member of a transdisciplinary approach to cancer treatment and survivorship. A review of the literature reveals recent trends among health psychologists to utilize psychoeducational interventions that include combined elements of cognitive and behavioral therapy with education and mindfulness training. Intervention studies have found positive effects from this approach, particularly within the areas of arousal, orgasm, satisfaction, overall well-being, and decreased depression [6].

Sexual health has been increasingly recognized as an integral aspect of quality of life during and after gynecological cancer treatment [1]. In order to comprehensively understand the nature of sexuality in this unique medical population, sexual health must be understood via both biological and psychological factors.

1. Female sexual dysfunction

The National Health and Social Life Survey suggested that 43% of all women are affected by some form of female sexual dysfunction (FSD) [7]. This number is substantially higher in women dealing with gynecologic cancers. FSD is defined by the American Foundation of Urological Disease as a diminished or absent feeling of sexual interest or desire, absent sexual thoughts or fantasies and a lack of responsive desire. FSD includes sexual desire disorder, sexual arousal disorder, female orgasmic disorder, and sexual pain disorders [8].

In accordance with the physical sequelae, sexuality is impacted by gynecologic cancer and associated treatment. In terms of sexual dysfunction in this population, many women report symptoms of a Female Sexual Arousal Disorder (FSAD), i.e. "persistent or recurrent inability to attain, or to maintain until the completion of the sexual activity, an adequate lubrication-swelling response of sexual excitement" where "the disturbance causes marked distress or interpersonal difficulty" [9]. FSAD may exist as a result of surgical procedures, medication effects, or changes in hormone levels. In addition, some women who do not fit the aforementioned group may still experience FSAD. Researchers have posited that associated threats to sexual identity and self-esteem, personal control over bodily functions, intimacy and relationship issues, and the potential end of reproductive ability are implicated in the negative effects on sexuality after cancer [6]. In addition, other psychological disorders such as depression and anxiety can affect sexual desire and functioning [8].

Sexual pain disorders are additional major contributors to sexual dysfunction in this population. Pain is caused by vaginal dryness caused by both lack of vaginal estrogen and cancer treatment. These include dyspareunia, a persistent pain with attempted vaginal entry, or penile vaginal intercourse and vaginismus, which is a persistent difficulties in allowing vaginal entry, despite her expressed wish to do so. Pain leads to avoidance of intimacy, and fear of intercourse.

2. Impact on partners

While research suggests menopausal status contributes to FSD in women diagnosed with gynecological cancers, psychosocial factors have been found to be important predictors of sexual satisfaction in this population [10]. More specifically, these factors include emotional and physical closeness to the partner, satisfactory communication, and a positive relation to one's own body [6].

Women whose sexual capacity is compromised are also worried about their partners' quality of life and overall well-being. Often, a woman's cancer diagnosis serves as a traumatic event that is sudden, unexpected, and out of their partner's control. The partner lacks the method of obtaining control over the cancer besides helping the patient to obtain good medical care and to adhere appropriately to the medical regimen.

Partners of women with cancer are dramatically affected by loss of sexuality and intimacy. Hawkins et al demonstrated that cessation or decreased frequency of sex and intimacy was reported in 79% of male partners of women affected by cancer. Renegotiation of sexuality and intimacy after cancer was reported by 14% of these partners. Changes to sexuality were associated with feelings of self-blame, refection, sadness, anger and lack of sexual fulfillment [11]. Further, male partners of women diagnosed with gynecological cancer often express several conflicting emotional states including feeling worried about their significant other's health, having the desire to engage in sexuality activity, and feeling guilty about wanting to increase sexual intimacy. These feelings, in turn, can lead to resentment and withdrawal from their partner and overall relationship discord.

This typical case scenario of a female gynecological cancer survivor and her husband highlights the impact of impaired sexuality and relationship distress as the result of combined hormonal and psychological factors. Mrs. X, aged 52 years administrative and her 55 year old husband are referred for psychological assessment and intervention by a gynecological oncologist. Medically, Mrs. X suffered from cervical cancer and underwent radical hysterectomy and bilateral salpingo-oophorectomy two years prior to intake. She was suffering from decreased libido and FSAD, secondary to both hormonal changes from surgically induced menopause and psychological distress. As a result, the couple had abstained from sexual intercourse for a period of six months. Both Mr. and Mrs. X agreed that the lack of intimacy had negatively impacted their relationship and had most recently contributed to an increase in arguments and marital discord. During the second treatment session, it became clear that Mrs. X was also experiencing other problems with her sexuality such as decreased body image satisfaction, decreased self-esteem, and worried thoughts about a recurrence of cervical cancer. In gathering more information, Mrs. X reported an association between sexual intimacy with her husband and her diagnosis of cervical cancer, as bleeding resulting from intercourse prompted her to seek initial medical attention two years ago. In an effort to avoid thinking about her cancer, she was also avoiding sexual intercourse with her husband. Behaviorally, sexual intercourse became generalized to other intimate behaviors including partner masturbation, kissing and petting, and even hand-holding and hugging. Mrs. X reported a fear that any intimacy with her husband might lead to intercourse and associated anxious thoughts about her health. As a result, she withdrew from her husband to

avoid this distress. Concurrently, Mr. X reported feeling a lack of intimacy and closeness between him and his wife in addition to associated feelings of guilt for wanting an increase in sexual activities. In therapy, a detailed explanation of this model of behavioral avoidance was presented. Interventions focused on challenging Mrs. X's maladaptive thought patterns and increasing the positive intimate experiences between the couple. After four treatment sessions, the couple reported a significant increase in sexual intimacy and a marked improvement in relationship satisfaction. Individually, Mrs. X reported a decrease in health related anxiety and an overall improvement in quality of life.

3. Hormonal interventions

Therapy for gynecological cancer often impacts the hormonal milieu of the woman, either through direct surgical exploration, radiation therapy, or chemotherapy. Acute disruption of estrogen and testosterone production, will produce significant menopausal symptomatology. It is often very difficult to quantify what proportion of sexual issues are brought about or exacerbated by such systemic symptoms as hot flushes and sleep disorders, and atrophic vaginal problems. Therapy for relief of these complaints can also impact on sexuality concerns.

4. Systemic hormone therapy

The view towards hormone therapy in the United States was severely impacted by the release of the first set of results from the Women's Health Initiative (WHI) [12]. It is ironic that even though most gynecologic cancer survivors receive estrogen only therapy if they are treated hormonally, as they have had hysterectomies, and the first results of the WHI pertained to recipients of estrogen plus progestin, the attendant publicity ground to a halt recruitment for the Gynecologic Oncology Group's prospective randomized study on estrogen replacement for women with early stage (stage I and II) endometrial cancer. Thus, the largest study on hormone therapy for the most common malignancy of the female genital tract in the United States was stopped prematurely. There are results available from these recruted to that study, and other older data to allow one to comment on likely effects of estrogen on endometrial cancer recurrence.

Premenopausal women who undergo surgical menopause often have severe symptoms; in general, many feel that the younger a woman undergoes menopause, the more likely she is to experience severe symptoms. Twenty five percent of women diagnosed with endometrial carcinoma are premenopausal; 5% occur in women under 40 years of age. Cervical cancer demographics show an even younger population. And although the median age of ovarian cancer diagnosis is 63 years, a large cohort of premenopausal women diagnosed with ovarian cancer exist [13].

Cervical cancer is not considered an estrogen responsive tumor. Limited studies have shown no increased rate of recurrence in cervical cancer survivors treated with systemic estrogen [14]. There is no significant data on recurrence rates of cervical adenocarcinomas with estrogen therapy; most oncologists suggest following data on endometrial primaries. HT is not contraindicated in women treated for vulvar or vaginal cancers.

Although limited data shows a very slight increased risk in development of ovarian cancer with long term HT, there is even more limited data on the use of HT in women with ovarian cancer; those studies do not show any difference in overall or disease-free survival [15,16] These studies did report an improvement in quality of life in women treated with HT.

The major debate in gynecologic cancers has been with the major cancer that has been linked to estrogen therapy: endometrial cancer [17]. As mentioned above, the Gynecologic Oncology Group initiated a large prospective randomized, placebo-controlled trial of HT in women treated for stages I and II endometrial carcinoma. This prospective study enrolled 1236 women from 1997 through January 2003. Before its premature termination due to the WHI findings, participants were followed for a median of 35.7 months. The absolute recurrence rate was very low, 2.1%, with a non-significant minimal increased risk of recurrence of 1.27 for those receiving HT (80% CI, 0.916–1.77). The women included in this study did include women whose indication for therapy was an increased risk of cardiovascular disease, as well as the still accepted indications of hot flashes, vaginal atrophy, and risk of osteoporosis. Given the very low risks of recurrence, many gynecologic oncologists use estrogen therapy to treat symptomatic women with early stage endometrial carcinoma.

Tibolone, which has both estrogenic and progestogenic activities, is prescribed outside the United States for osteoporosis, and has good efficacy for vasomotor symptoms. One case controlled study confirmed tibolone's safety for endometrial cancer survivors, with no adverse effects on disease-free or overall survival [18]. However, a recently published prospective randomized trial reported an increased risk of breast cancer recurrences in women receiving Tibolone for HT. [Kenemans Peter; Bundred Nigel J; Foidart Jean-Michel; Kubista Ernst; von Schoultz Bo; Sismondi Piero; Vassilopoulou-Sellin Rena; Yip Cheng Har; Egberts Jan; Mol-Arts Mirjam; Mulder Roel; van Os Steve; Beckmann Matthias W; Safety and efficacy of tibolone in breast-cancer patients with vasomotor symptoms: a double-blind, randomised, non-inferiority trial. The lancet oncology 2009;10(2):135–46.]. We have no experience with Tibolone in our practice.

5. Topical therapy

Many women who have had gynecologic cancers have been treated with radiation therapy in addition to their surgery. Many of these women suffer from vaginal stenosis as well as routine atrophic symptoms. For these women, topical estrogen therapy can be invaluable. We often find that for these women, a combination of topical therapy in addition to systemic therapy can be very useful. Although estrogen ring therapy can be useful, initial therapy with vaginal creams or tablets is often more helpful. Combining vaginal estrogens with dilators can further ease dyspareunia.

Although there is some absorption initially with topical therapy, once the vaginal atrophy is treated, absorption is reduced. And as noted above, there is minimal contraindication to even systemic therapy in most women. For women who prefer not to use hormonal therapy, polycarbophil based vaginal moisturizers can be helpful. These are available over-the-counter in the United States. Water based vaginal lubricants are helpful to ease penetration with intercourse.

6. Alternative therapies

For women who are suffering from significant vasomotor symptoms, alternative therapies are limited. The concern that one needs to deal with is that the therapy should not exacerbate other medical and psychological issues. The use of SSRIs and SNRIs for vasomotor symptoms was pioneered by medical oncologists for men with hot flashes secondary to GnRH agonist therapy for prostate cancer, and women with breast cancer [19,20]. However, the concern in our setting is that we may further exacerbate sexual symptoms, a phenomenon well noted with antidepressant therapy.

Another option for vasomotor symptoms is gabapentin. However, side effects such as edema and fatigue mitigate against its widespread use.

7. Conclusion

Sexuality and intimacy are greatly affected by diagnosis and management of gynecologic cancer. Psychotherapy can assist with lack of desire and orgasms and help address other psychological and interpersonal issues. Further prospective studies are needed to clearly delineate risks and benefits of hormone replacement therapy in patients with gynecologic cancers. Individual approaches should be employed, taking into consideration the patients' symptoms, quality of life, tumor histology, and overall prognosis.

Most importantly, these important issues need to be addressed by providers and non-biased information needs to be provided. Stead et al. [3,4] demonstrated that health professionals do not address sexuality issues with patients, and physicians in the study were both uncomfortable discussing sex and lacked knowledge about the sexual problems that cancer can cause. Multiple valuable sources to gain this information exist, including Oncolink, from the University of Pennsylvania Cancer Center, Philadelphia [21]. CancerBACUP, another cancer support and information service (www.cancerbacup.org.uk) [22] provides explicit answers to sexuality questions.

The first oncology consultation is an anxiety provoking event for all couples. We suggest that the team provide, and mention that they will provide, not only the best medical and surgical care available to cure the woman's cancer, but also the follow-up care to ensure return to a healthy normal sexual and emotional life. Team members need appropriate education as well. Written information for patients is helpful for all aspects of oncology care, including psychosexual adjustment information, as the stresses associated with oncology visits decrease patients' abilities to retain all the information presented.

We have found that patients as well as providers, working in such an improved setting report significant satisfaction.

Conflict of interest

Speaker's bureau for Novogyne (vivelle dot patches) and Bayer (Angeliq); and consultant for Enzymatic (the folks who import Remifemin)-also consultant for Wyeth Ayerst. Dr. Minkin is a speaker for Novogyne and for Bayer and consultant for Enzymatic and for Wyeth Ayerst.

Contributors

Elena Ratner, Kelly Foran, Peter Schwartz and Mary Jane Minkin contributed to writing and editing the manuscript.

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