Supportive Care

Sexual dysfunction and its impact on multiple myeloma

Myeloma Today in conversation with Tiffany Richards

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Over the past decade, advances in anti-myeloma therapy have led to better overall survival for patients with multiple myeloma. New treatments provide hope for extended disease-free periods and improved outcomes for patients. As more people are living longer with myeloma, members of the IMF Nurse Leadership Board (NLB) are addressing the evolving needs of myeloma survivors. Patient survivorship care planning allows for optimal management of emergent late-term effects and improved quality of life. The NLB Survivorship Care Plan, which is currently being prepared for publication, examines five specific aspects of long-term care for the benefit of patients and the nurses who work with them. The five areas are: Health Maintenance, Sexuality and Sexual Dysfunction, Renal Complications (see Spring 2010 Myeloma Today*), Bone Disease & Bone Health (see Spring 2010 Myeloma Today), and Functional Mobility and Safety (see Summer 2010* Myeloma Today*). Tiffany Richards, the leader of the sexuality and sexual dysfunction task force, spoke with* Myeloma Today *about the work of her team.*

What is the definition of sexual dysfunction?

The World Health Organization defines sexuality as a "central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction." Sexuality is influenced by many interactions of biological, psychological, social, economic, political, cultural, ethical, legal, historical and religious and spiritual factors.

Sexual dysfunction occurs when a disruption of the sexual response cycle occurs as a result of physical illness or psychological factors rather than part of the normal aging process. Sexual dysfunction can be described as one of four main categories: sexual desire disorder (decreased libido), sexual arousal disorder, orgasm disorder, and sexual pain disorders.

What are the causes of sexual dysfunction in illnesses in general and myeloma in particular?

Review of the literature regarding sexual function in cancer patients is limited primarily to patients diagnosed with prostate, breast, or gynecological cancers. There is little research regarding sexual dysfunction in patients with multiple myeloma, so the information related to the assessment and evaluation of sexual dysfunction is gleaned from other malignancies and diseases. My NLB task force is working on promoting dialogue and assessment practices amongst myeloma patients.

Patients undergoing treatment for myeloma may experience an exacerbation of pre-existing disorders or develop new disorders as a consequence of treatment. Physical disorders that may have an impact on sexual functioning include endocrine abnormalities, cardiovascular disease, pelvic disease, cancer, and renal insuffiency. In addition, treatment of these illnesses (medications, chemotherapy, or radiation) or their associated complications, may worsen symptoms. The effects of disease on sexual dysfunction vary in the degree and the type of dysfunction.

In patients with myeloma, treatment may precipitate diseases such as diabetes, hypertension, and anemia. Additionally, myeloma may impact renal function, mobility, and pain due to bone disease or neuropathy. Patients receiving treatment may experience disruptions in sexual response as a result of fatigue, weakness, pain, and alterations in body image. Additionally, patients with compression fractures may experience pain and diminished mobility, inhibiting sexual function. Chronic pain requiring long-term opiate use affects erectile function, hormonal levels, and libido.

Cardiovascular disease (hypertension, atherosclerosis, vascular disease, cerebral vascular events) has systemic effects including sexual dysfunction. Men with erectile dysfunction (ED) have an increased incidence of cardiovascular events. The risk of cardiovascular events among women who have cardiovascular disease is not known. Myeloma patients receiving treatment with steroids are at increased risk of developing hypertension and require close monitoring of blood pressure during treatment.

Radiation to the pelvis may cause delayed arousal and orgasm through damage of the pelvic vascularity and nerves. Women may develop vaginal stenosis and fibrosis leading to dyspareunia and painful pelvic examinations.

The use of thalidomide/lenalidomide in the treatment of women with myeloma may disrupt sexual function due to the requirements of birth control measures. Oral contraceptives may cause decreased libido, and may affect sexual function by decreased testosterone levels.

Body image, depression, concerns about the future, abandonment issues, and history of abuse may have a negative impact on sexual function. A study of cancer patients found that the effects of treatment impaired mental well-being, thus affecting body image. Body image-related side effects were reported as the most severe chemotherapy side effect. In myeloma, treatments produce both temporary and permanent changes, potentially affecting body image and thereby influencing sexuality. Dependency on caregivers may have an impact on psychological well-being, particularly if they require assistance that minimizes their privacy.

What is the impact of myeloma and its treatments on sexual dysfunction?

Disruption of cancer patients' normal sexual functioning and fertility has been documented in those receiving traditional chemotherapy. Additionally, high-dose therapy with melphalan followed by autologous stem cell transplantation precipitates a chemically-induced menopause in younger women. Vincristine and cisplatinum temporarily or permanently damage parts of the central nervous system leading to ED and ejaculation difficulties.

There is anecdotal evidence that sexual dysfunction is an occurrence with novel therapies being used in myeloma. Reports of ED and decreased libido in patients receiving bortezomib and lenalidomide are becoming a common experience with practitioners treating myeloma patients. Thalidomide has documented evidence of ED. The restricted use of both thalidomide and lenalidomide may have psychological effects due to the knowledge these drugs may cause birth defects.

In addition, myeloma patients may require a bone survey to determine if there is a current or pending fracture contributing to pain or causing risk during sexual activity.

What are the treatments of male sexual dysfunction?

Oral medications have been shown to improve ED, the most common male sexual problem. However, in patients currently receiving nitrate therapy, the use of of those medications is an absolute contraindication. Other ED interventions include intracavernous or transurethral injections, testosterone replacement, vacuum erection devices, surgical interventions, and/or psychotherapy. It is important to note that the use of intracavernous or transurethral injections is an absolute contraindictation in patients with myeloma and certain other conditions.

What are the treatments of female sexual dysfunction?

Studies have indicated that 30-50% of women have sexual problems resulting in distress and interpersonal difficulty. The most common female sexual disorder is decreased libido. Women have reported improved libido, increased energy and sense of well-being with testosterone replacement. However, there are potential risks and side effects with the use of testosterone and other androgen therapies. Such therapies are not appropriate for postmenopausal women who have a history of breast or uterine cancer or those who have cardiovascular or liver disease.

What about fertility preservation in myeloma?

Chemotherapy and radiation may lead to infertility in 30-75% of male patients. In women, the effects of chemotherapy and radiation may lead to premature menopause thereby leading to a loss of fertility. Currently, the American Society of Clinical Oncology (ASCO) recommends sperm cryopreservation for male patients and embryo cryopreservation for female patients. Other options may be offered at specialty centers. Patients interested in preserving their fertility should discuss this with their healthcare provider.

Any closing comments?

There is a need for improved communication between doctors, nurses, and patients around sexuality issues. Do not be concerned about asking questions or describing changes in your sexual function to your healthcare provider. A referral to a gynecologist or urologist, or clinical psychologist, certified sex therapist, or marriage and family therapist may be appropriate. Sexuality is an important part of overall well-being and open communication with your partner and with your healthcare provider is essential in treating the underlying cause of the problem.

出典：「Myeloma Today」 Fall 2010, Volume 8 Number 4: Page10
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