

## CASE REPORT

# Sexual Dysfunction in Premenopausal Women Treated for Breast Cancer – Implications for their Clinical Care

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## Abstract

Breast cancer is the commonest cancer in women globally. Early stage diagnosis in young sexually active women, coupled with advances in adjuvant therapy has contributed to an increase in the number of young survivors. A diagnosis of breast cancer may affect the woman's self-esteem, sexuality and intimate relationships. Surgical alteration or loss of the breast, a symbol of femininity and sexuality, may negatively impact her body-image. Chemotherapy may cause ovarian damage leading to premature menopause. The psychological effects thereof may impair the man's ability to offer emotional support to the woman as well as affect their relationship. These may affect a survivor's sexual functioning and quality of life. This paper reports on four premenopausal women treated for breast cancer and the sexual sequels thereof. It is aimed at raising awareness amongst health providers managing women with breast cancer in sub-Saharan Africa on the impact thereof of their quality of life as well as sexual functioning. Treatment of breast cancer has focused mainly on improved survival with no due consideration of its impact on quality of life. There is need for multi-disciplinary approach in managing these patients to address all concerns in a wholesome manner. (*Afr J Reprod Health 2016; 20[2]: 122-128*).

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**Keywords:** Breast cancer, young women, sexual dysfunction, sub-Saharan Africa

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## Résumé

Le cancer du sein est le cancer le plus fréquent chez les femmes à l'échelle mondiale et il est diagnostiqué à un stade précoce chez les jeunes femmes en préménopause qui sont sexuellement actives. Le diagnostic à un stade précoce y compris le progrès dans le traitement adjuvant ont contribué à une augmentation du nombre de jeunes survivants. Un diagnostic de cancer du sein peut affecter l'estime de soi chez la femme, sa sexualité et ses relations intimes. La modification chirurgicale ou la perte du sein, un symbole de la féminité et de la sexualité, peuvent avoir un impact négatif sur son image corporelle. La chimiothérapie peut causer des dommages de l'ovaire conduisant à une ménopause prématurée. Les effets psychologiques peuvent nuire à la capacité de l'homme à offrir un soutien affectif à la femme, ainsi que nuire à leur relation. Ceux-ci peuvent affecter le fonctionnement et la qualité de la vie sexuelle d'un survivant. Ce document rend compte de quatre femmes en préménopause qui ont été traitées pour un cancer du sein et les séquelles sexuelles de ceux-ci. Il vise à sensibiliser les professionnels de la santé qui s'occupent des femmes atteintes du cancer du sein en Afrique sub-saharienne sur l'impact, de leur qualité de vie ainsi que leur fonctionnement sexuel. Le traitement du cancer du sein a porté principalement sur l'amélioration de la survie sans considération aucune de son impact sur la qualité de vie. Il est nécessaire d'adopter une approche multidisciplinaire dans le traitement de ces patients pour répondre à toutes les préoccupations d'une manière saine. (*Afr J Reprod Health 2016; 20[2]: 122-128*).

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**Mots-clés:** cancer du sein, jeunes femmes, dysfonction sexuelle, Afrique sub-saharienne

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## Introduction

Breast cancer is reportedly the most frequent malignant condition diagnosed globally<sup>1</sup>. It is said to be less common in SSA than the Western developed countries. There are no reliable population-based or representative data on breast cancer from sub-Saharan Africa. The few published reports are often based on either national or institutional cancer registries, histological data or hospital-admission records. An incidence of 15-53/100,000 population with a peak age of 42 to 53

years was reported in SSA, compared to the 40-89/100,000 population incidence reported in developed countries. The peak age at diagnosis in SSA has been found to be 10 years younger than that observed in the developed countries of the West<sup>2-6</sup>.

The number of women diagnosed with breast cancer is said to have increased steadily in the recent past in both developed and developing countries. This is partly attributed to increased screening and early detection as a result of heightened public awareness. While the majority

of women with breast cancer are more than 50 years old at the time of diagnosis, the number of young premenopausal women diagnosed with breast cancer is growing all over the world<sup>7</sup>. Studies indicate that about 25-30% of newly diagnosed breast cancer cases each year are aged less than 50 years<sup>8,9</sup>. Bloom et al (2012) reported that 24% of women with breast cancer in the USA were aged <50<sup>8</sup>. With the peak age at diagnosis in SSA being 10 years younger than that in the developed world including the USA, it is possible that a sizeable proportion of women diagnosed with breast cancer are young. Amir et al (2001) reported that 8.0% of women with breast cancer in Dar-es-Salaam, Tanzania were aged <30 years<sup>10</sup>.

Treatment of early breast cancer comprises surgery, either mastectomy (radical or simple, bilateral or unilateral) or breast conserving surgery such as lumpectomy. This is then followed by adjuvant therapy in the form of chemotherapy, hormonal therapy, radiotherapy, immunotherapy or combinations thereof, in attempts to reduce recurrences and improve survival<sup>11-14</sup>. Early diagnosis and treatment with advances in adjuvant therapy, which continues to evolve, has contributed to the growing number of breast cancer survivors and duration of survivorship. However, this long-term survival is often associated with adverse effects on the physical, functional, psychological, social and sexual well-being of the survivors<sup>15,16</sup>. Young women treated for breast cancer are particularly vulnerable to these adverse effects because of their developmental stage in life. They report more problems with self-image, worse emotional well-being and psychological distress than older women<sup>15-18</sup>.

One of the major adverse effects of breast cancer diagnosis and treatment is poor sexual functioning amongst the survivors<sup>19,20</sup>. Reports indicate that between 15-64% of women treated for breast cancer experience one or more sexual problems<sup>21-23</sup>. These are particularly pronounced and of major concern among the younger survivors, as they are more vulnerable to changes in ovarian function often as a result of chemotherapy and have concerns about body-image following surgery and/or adjuvant therapy<sup>24,25</sup>. Poor sexual function is strongly

associated with use of chemotherapy<sup>11,26,27</sup>, which is also strongly associated with sexual dysfunction such as low or lack of desire, arousal difficulties, problems with lubrication, dyspareunia and lack of or difficulty in achieving orgasm<sup>8,13,15,28,29</sup>.

This paper presents four illustrative cases out of those managed by the author in his private clinic in the past three years. It is aimed at raising awareness among health professionals managing women with breast cancer namely breast surgeons and oncologists in Kenya and other parts of SSA on related sexual problems following diagnosis and treatment. It also highlights the need for a multidisciplinary approach in their care so as to address all their concerns and potential sequelae of the diagnosis and subsequent treatment.

## Methods

A national conference on breast cancer was held in Nairobi, Kenya in October 2013, at which I was invited to present a paper on breast cancer and its impact on female sexual function. A number of breast cancer survivors from various parts of the country and some members of their families attended the conference. During the discussion following my presentation, a number of them expressed concerns regarding their sexuality following the diagnosis and treatment, and ten of them decided to visit me at my private clinic located in the City of Nairobi, Kenya for counselling and follow up.

Four illustrative cases were chosen out of these ten and the few others I have seen in my clinic to highlight the effects of diagnosis and treatment of breast cancer on the survivors' sexual function.

The diagnosis of sexual dysfunction was based on the patient's history and the extent to which the problem was affecting the individual woman psychologically, cognisant of the international definition and classification of female sexual dysfunction<sup>43</sup>.

## Case Reports

**Case No 1:** A 49 year old nurse, mother of three grown up children, married to a Civil Engineer was diagnosed with breast cancer at age 42. She

had bilateral mastectomy and after pathological examination of the specimen was told she had estrogen-receptor positive tumour, for which she was advised to have hysterectomy and bilateral oophorectomy. She was subsequently put on tamoxifen and followed up for five years after which she was told she had no evidence of recurrences. She has remained in relatively good health to date.

With regards to sexual functioning, she reported that she had some problems with lubrication and low desire at the start of treatment especially after the hysterectomy and oophorectomy, but these improved greatly after she completed the adjuvant treatment. She continues to have regular and enjoyable sexual relationship with her husband, and gets orgasms regularly, although she has lubrication issues which she attributes to her age and the oophorectomy. She has learnt to cope with the dysfunction. Her immediate family, husband and three children, the only relatives who know about the condition, have been very supportive all through the treatment period.

**Case No. 2:** A single, nulliparous, 25 years old University Graduate was diagnosed with breast cancer at the age of 23. A breast-conserving surgery (lumpectomy) was performed as her cancer was at a very early stage, followed by chemotherapy. She was still on this treatment and being followed up by the surgical and oncology teams at the time I saw her. She reported to have lost quite a bit of weight and all her hair after initiation of chemotherapy. She has had to wear a wig and occasionally a head scarf, and has problems concentrating on her work as a sales executive at a private manufacturing company.

Her father and mother, both university graduates, and two brothers both younger than her, have been very supportive since she was diagnosed with the cancer. She still lives with them at the family home in the city.

She had been sexually active prior to the diagnosis and had had two boyfriends. The last one left her soon after she broke the news of her condition to him and has not communicated with her since. She has not been sexually active since the diagnosis of breast cancer and was not even

thinking about it. She has no sexual desire at all. She also complained of dryness of the vagina which causes her some discomfort from time to time, and has been amenorrhoeic from about three months after the start of chemotherapy.

**Case No. 3:** A married, 30 year old Research Assistant was diagnosed with breast cancer in 2010, six months into their marriage. She had unilateral mastectomy followed by adjuvant chemotherapy. She was still being followed up by the surgical and oncology teams.

She reported that the first six months of their marriage had been blissful. They had regular enjoyable sexual relations and intimacy. However, following the diagnosis and treatment, things had changed a lot. Her husband had become withdrawn, non-communicative and had taken to drinking heavily, often coming home late at night or sometimes coming back the following day. He would not even bother to call or explain where he was or had been. He was still working in the same company where he was one of the founders and a major share-holder and had been paying for all her medical expenses and overall upkeep. They live in their own house and have house servants. He rarely discusses the wife's condition with her or enquires how she's doing. She has no desire for sexual intercourse at all, and they had not been sexually intimate for over two years. She felt abandoned by her husband at a time when she needed him most.

**Case No. 4:** A married, 39 year old High School Teacher and mother of three, was diagnosed with breast cancer at age 29, two years after the birth of their first child. She had unilateral mastectomy followed by reconstructive surgery and chemotherapy. She was followed up for five years by the surgical and oncological teams at the end of which she was told there was no evidence of recurrences. As she had expressed a desire to get more children she was allowed to conceive. She has had two pregnancies since and was currently nursing the last born. Her husband has been a source of inspiration and has been very supportive all through. They have regular enjoyable sexual intercourse, although initially she had low desire and would experience poor lubrication. The

frequency and intensity of orgasms have also diminished somewhat, but there was no dyspareunia.

## Discussion

Diagnosis and treatment of breast cancer have been reported to have adverse effects on the physical, psychological and social well-being and sexual functioning of the survivors<sup>19,20,31,32</sup>. A diagnosis of breast cancer especially in young women, who are still in their reproductive age bracket, (15-49 years old), may elicit feelings of anger, anxiety, shock, disbelief, grief, sadness and fear<sup>33</sup>. They are more vulnerable to psychological and social distress because of their developmental stage in life<sup>17,18,34</sup>. Young breast cancer survivors, (<50 year olds), like the ones presented, are particularly vulnerable to the surgical effects and side-effects of adjuvant therapy. They have worse emotional well-being, more psychological distress, are more anxious and have self-image concerns than older survivors, all of which may lead to sexual dysfunction<sup>25,30,31,35</sup>, defined as “a difficulty experienced by an individual or a couple during any stage of normal sexual activity, including desire, arousal or orgasm, lasting more than six months and which causes extreme distress and interpersonal strain<sup>43</sup>.”

The oldest presented patient, case number one, did not appear to have had any significant psychological distress even with the loss of her breasts, uterus and ovaries, possibly because she had completed her family. The same applies to patient number four who was doing fairly well after getting two children following treatment. Dow (1994) observed that breast cancer survivors who managed to achieve a successful pregnancy tend to have relatively normal sexual life and well-being<sup>37</sup>.

Mastectomy has been shown to impact negatively on the woman's body-image<sup>15,38,39</sup>. The woman feels less attractive<sup>13</sup>, has lower sexual efficacy and assertiveness and poorer sexual-esteem<sup>40,41</sup>. Breast-conserving surgery e.g. lumpectomy, has been reported to be associated with better self-image<sup>14,42</sup>, than mastectomy. However, studies have not shown an association

between the type of surgery and sexual dysfunction<sup>15,25,26,28</sup>.

Poor or lack of sexual desire (libido) has been reported as the most common sexual dysfunction by 48-64% of breast cancer survivors<sup>24,28,29</sup>. Other common sexual dysfunctions are poor lubrication and dyspareunia<sup>44-46</sup>. However all sexual function domains, i.e. desire, arousal/lubrication, and orgasm, may be affected<sup>11,13,21,28,36</sup>. This is not unexpected cognizant of the complexity and cyclic nature of female sexual response as espoused by Basson et al (2004)<sup>43</sup>, and the factors that influence it such as physical, psychological, emotional and social well-being, all of which are affected by diagnosis and/or treatment of breast cancer. The sexual dysfunctions are worst and more prevalent at the beginning and during the course of treatment especially with adjuvant chemotherapy<sup>29,47</sup>. While they tend to improve on completion of treatment, some women still report sexual dysfunction years after treatment<sup>8,12,28,48,49</sup>. This is particularly common among those who experience chemotherapy-induced premature menopause<sup>28,49</sup>. The oldest of the four presented patients had premature menopause due to oophorectomy which did not seem to have had a significant effect on her sexual functioning. The same applies to the tamoxifen she received as her tumour was estrogen-receptor positive, which has also been shown to have little or no effect on survivors' sexual functioning<sup>48,49</sup>. The 39 year old patient diagnosed at 29 years, had temporary amenorrhoea while on treatment, but on completion thereof, she not only resumed menstruation but had been able to conceive twice. This appeared to have had a positive impact on her quality of life, as reported elsewhere<sup>50</sup>. It is too early to comment on the possible long-term menstrual patterns of the other two younger survivors. Their amenorrhoea while on treatment may be temporary cognizant of the fact that younger women have sufficient ovarian follicle reserves<sup>9</sup>, and may therefore resume normal ovulatory menstrual cycles in due course like the 39 year old did. Of importance also is the fact that the risk of chemotherapy-induced premature menopause increases significantly after age 35<sup>51</sup>. Both women were much younger than

that. Both partners are inevitably affected by the breast cancer<sup>12</sup>. Young spouses experience emotional distress which may impair their ability to offer emotional and psychological support to their wives/partners<sup>34</sup>. They also find it hard to communicate with their partners regarding their illness. This may lead to serious relational problems, which if not addressed may lead to divorce or separation. Sbitti et al (2010) in their study in Morocco reported that 20% of the survivors had been divorced<sup>13</sup>, while Walsh et al (2006) reported that 25% of their study group had relational problems while 12% had either been divorced or separated after the diagnosis and treatment<sup>52</sup>. The two youngest patients had relational problems with one having had a boyfriend walk-out on her once he knew the diagnosis, and the other one her husband had become uncaring and non-communicative. While these may be explained on the short duration of marriage and/or relationships it may also be a reflection of the quality of their respective relationships prior to the diagnosis, a factor which has been cited as a strong predictor of sexual problems following diagnosis and treatment<sup>28,53</sup>. The partners' emotional involvement and understanding of the woman's experiences related to the disease and its treatment influence her psychological adjustment<sup>55</sup>, which helps alleviate the negative consequences thereof, including sexual dysfunction, as shown by the older and longer married duo.

The long-term survival, especially after adjuvant chemotherapy, may also have other health consequences, which may indirectly or even directly affect sexual functioning and quality of life. Wolf et al (2014) in their study in the US showed that women with early breast cancer disease treated with adjuvant or preventive chemotherapy have an increased risk of developing leukemia, of 0.5% at 10 years which was about twice the rate reported in earlier studies<sup>54</sup>.

## Conclusions and Recommendations

Treatment of breast cancer has to date focused mainly on improved survival without due consideration of its impact on the survivors' sexual

health and quality of life. The sexual dysfunctions resulting from diagnosis and treatment of breast cancer may be long-term and have negative impact on the quality of life of the survivors and their partners. Despite overwhelming evidence on the association between breast cancer treatment and sexual dysfunction among survivors, patients and their spouses/partners do not receive adequate support to manage the dysfunctions. This is partly due to lack of awareness among health care providers and training on sexual health and lack of access to relevant services by the patients.

Health care workers involved in the management of women with breast cancer in sub-Saharan Africa need to be aware of the impact of treatment thereof on sexual functioning amongst the survivors. They'd be encouraged and supported to appropriately counsel and inform their patients and partners very early in the course of treatment, of this association. An attempt must always be made to screen patients with breast cancer to identify person-related factors and individuals at risk so that through an integrated approach the patients may be supported in order to address sexual dysfunction and other sexual problems they may have or develop. There is also need to undertake local and regional research to identify among other issues the prevalence of sexual dysfunctions among women breast cancer survivors, the predisposing/associated factors, as well as identify appropriate interventions.

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