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Research Article

Effects of Cancers and Their Treatments on Well-Being and Sexuality of Women

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Abstract

Purpose (stating the main purposes and research question): To evaluate the consequence of the cancers and their treatments on quality of life, body image, self-esteem and sexuality in women

Methods: A questionnaire was addressed to 247 patients who had a multidisciplinary follow-up after cancer diagnosis.

Results: A significant decrease in quality of life, life satisfaction, body image, self-esteem and sexuality appeared after cancer diagnosis, whatever the type of cancer.

Conclusions: There is a great need to offer a holistic approach to cancer patients in order to take care of side effects especially for sexuality.

Keywords: Cancer, Female, Sexuality, Quality of life, Self-esteem, Body image

Introduction

The prognosis of cancers had a great improvement during the last decades [1] and thus there is an increase in the number of adults who are survivors of childhood, adolescent or young adult cancer [2]. However, this improvement in survival rates is associated to long term consequences which necessitate further cares [3] and surveillances [4]. In female, alkylating agents and/or radiations are at high risk to induce premature ovarian failure (POI) which has major impacts on fertility, quality of life, sexuality, and can also induce osteoporosis and cardiovascular disorders [5-7]. Moreover, surgical treatments of gynaecologic cancers can have a great influence on sexuality and fertility [8].

In order to take care of these consequences we have designed a multidisciplinary approach including gynecological, endocrinological, pre-conceptional, sexological and psychological cares for young patients having been treated for cancer. The aim of the present study was to evaluate the actual needs of the patients to improve their management.

Materials and Methods

Patients

We have sent a questionnaire to 247 patients who had a cancer multidisciplinary consultation from April 2012 to April 2015.

The questionnaire was based on SF 36 questionnaire on quality of life [9] and FSFI for sexuality [10].

The questions were closed ended and graduated from 1 to 5. For each parameter the same questions were asked on patients' feeling before and after cancer diagnosis.

Statistical Analyses

Statistical analyses were performed using Statview software (SAS Institute, Cary NC, USA). Data are means ± SD. Comparison of percentages was done using χ^2 test and comparison of means using the Student paired test or the Wilcoxon paired test, depending on the normality of data distribution.

The study was approved by Toulouse University Hospital's Clinical Research Ethics Committee (n° 05-0115). The database was approved by the Comité Consultatif sur le Traitement de l'Information en matiere de Recherche dans le domaine de la Santé (CCTIRS n°15.261).

Results

Demographic data

The response rate to the questionnaire was only 34% (Figure 1). The mean age of patients at the time of the questionnaire was 33.9 ± 5.1 and the delay between cancer diagnosis and response to the questionnaire 38 ± 39 months.

Figure 2 reports the diagnoses and shows that the main pathologies were breast cancer, lymphoma and leukemia.

Impact of cancer on quality of life

There was a significant decrease in quality of life (4.6 ± 0.7 and 3.5 ± 1.0 respectively before and after cancer diagnosis ; p<0,001). However, in young patients (<23) this difference was not statistically significant (4.0 ± 1.2 vs 3.9 ± 1.0; NS). The type of cancer had no influence on quality of life neither the delay between the end of treatment and the answer to the questionnaire.

Impact of cancer on life satisfaction

There was a slight but significant decrease (4.1 ± 0.7 and 4.0 ± 0.5 respectively before and after cancer diagnosis ; p<0.05) of life satisfaction. Nor the age, type of cancer and neither the delay between the end of treatment and the answer to the questionnaire had influence on this decrease.

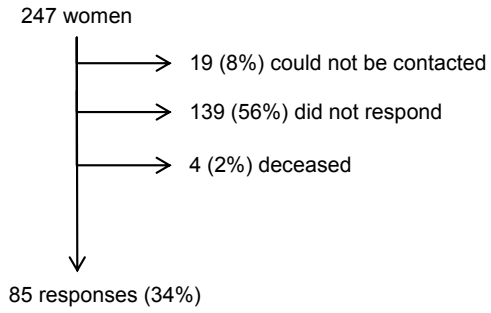

Figure 1: The response rate to the questionnaire was only 34%

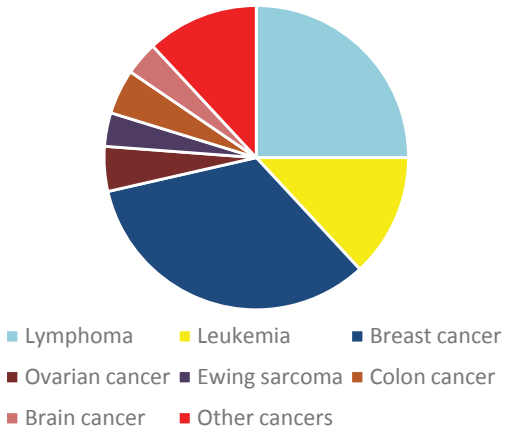

Figure 2: Reports the diagnoses and shows that the main pathologies were breast cancer, lymphoma and leukemia

Impact of cancer on body image

The body image appeared significantly worst after cancer (3.6 ± 0.8 and 2.7 ± 1.1 respectively before and after cancer diagnosis ; p<0.0001). Even if age had no influence, we observed a non significant effect of the type of cancer with a higher decrease in solid tumors than in hematologic diseases (-1.0 ± 1.3 vs -0.7 ± 1.2; NS).

Impact of cancer on self-satisfaction

No decrease in self-satisfaction was found (3.6 ± 0.7 and 3.6 ± 1.0 respectively before and after cancer diagnosis ; NS).

Impact of cancer on social relations

Social relations appeared not to be affected by cancer. (3.9 ± 0.7 and 3.7 ± 1.0 respectively before and after cancer diagnosis ; NS).

Impact of cancer on sexuality

To avoid bias, the analysis of these parameters was restricted to patients who were partnered before and after cancer diagnosis. A significant decrease in sexual satisfaction was observed (4.9 ± 1.6 and 4.0 ± 1.2 respectively before and after cancer diagnosis ; p<0.001). Moreover, as shown in table 1, the intercourse frequency was significantly lower after diagnosis (p<0.001). These decreases occurred in all types of cancer.

	≥ 1/week	≥ 1/month	< 1/month	none
Before cancer	28 (70%)	9 (23%)	3 (8%)	0
After cancer	19 (48%)	10 (25%)	8 (20%)	3 (8%)

Table 1: Frequency of sexual intercourses before and after cancer (p< 0.001) in women living in couple before and after cancer

When studying women with (n=33) and without (n=40) sexual satisfaction, it appeared that the former had higher quality of life (3.8 ± 0.9 vs 3.3 ± 1.0; P < 0.05), better body image (3.0 ± 1.0 vs 2.4 ± 1.0; P < 0.05), higher self-satisfaction (3.9 ± 0.8 vs 3.3 ± 1.0; P < 0.01) and better social relations (1.0 ± 0.7 vs 3.5 ± 1.0; P < 0.05).

Discussion

The cancer types are slightly different than those usually found in France for adolescents and young adults since there is neither melanoma nor thyroid carcinoma [11] in our population. This is surprising since melanoma is one of the most frequent cancer in young adults and 58% of its treatments are considered as at risk for female fertility [12]. This is probably due to a lack of information of patients and dermatologists on such a care. On the opposite, the absence of thyroid carcinoma seems normal due to the absence of ovarian toxicity of radioactive iodine [13].

The quality of life was significantly decreased, mainly in patients older than 23. Such a decrease has already been reported and has been related mainly to the fear of recurrence [14,15]. Moreover, patients with breast cancer have a distorted body image which affect self-confidence and quality of life particularly when there is a chronic lymphedema [16]. We found that youngest women had a lower decrease in QOL than oldest one. The role of age on quality of life has been reported by Salonel et al. [17] who found that women ≥ 55 years had better psychological and spiritual QOL

than younger women. These results are difficult to be compared to ours since the studied populations are very different concerning age. An explanation could be that patients over 23 fear about their fertility which can be severely impacted by chemotherapies, while younger ones are perhaps less concerned by fertility.

The main finding in our study is the decrease in quality and frequency of sexuality. The impact of cancer on sexuality has been studied mainly in gynaecological cancers, especially in breast cancers. According to Arrington, et al. [18], human sexuality is a multidimensional construct. Their literature review underline that six domains were commonly represented in questionnaires, including interest and desire, satisfaction/quality of experience, excitement/arousal, performance, attitude/behavior, and relationship. Thus its deficiency in cancer patients has been related to both physical and emotional effects of treatments [19,20]. The physical effects include vulvogenital atrophy and defect of lubrification inducing dyspareunia. They are consequences of chemotherapy and hormonotherapy which lead to estrogen deprivation [21,22]. The psychological ones have been reported in gynaecological cancer patients related to the feeling of loss of womanhood and femininity due to the removal or changes of their reproductive organ [22]. However, we had similar findings in non gynaecological cancer (blood cancer), who had less decrease in body image. For them, the psychological impact on sexuality has been reported to depression and tiredness [23] and also death anxiety which dramatically impairs sexuality [24]. Moreover, sexual satisfaction plays an important role on the all the well-being parameters.

These results plead for an holistic care of cancer patients including gynaecological, endocrinological, sexual and psychological aspects [25]. All patients must be offered support and education, tailored to individual needs [17]. Such a program is running in our department, allowing the patients to have appointments with all specialists on the same day in the same place.

Conflict of Interest

No funding has been obtained for this work.

The authors have full control of all primary data and if you agree to allow the journal to review their data if requested.

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