



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Sexual dysfunction among breast cancer survivors in adjuvant endocrine treatment

Andersen, M. F.; Højgaard, Astrid Ditte; Rotbøl, Charlotte Birkmose; Jensen, A. B.

*Publication date:*  
2019

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

Andersen, M. F., Højgaard, A. D., Rotbøl, C. B., & Jensen, A. B. (2019). *Sexual dysfunction among breast cancer survivors in adjuvant endocrine treatment*. Poster presented at 2019 San Antonio Breast Cancer Symposium, San Antonio, United States.

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- ? Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- ? You may not further distribute the material or use it for any profit-making activity or commercial gain
- ? You may freely distribute the URL identifying the publication in the public portal ?

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

## ABSTRACT

The majority of women treated for primary breast cancer (BC) will receive adjuvant endocrine treatment (AET). A treatment, which has several side effects with a varying degree of severity. In some cases, they result in impaired quality of life of the breast cancer survivors (BCS). For younger BCS, these side effects are often augmented by the fact, that premenopausal women may turn postmenopausal by the adjuvant chemotherapy.

Among the most common side effects are hot flashes, sweating, vaginal dryness and arthralgia. Sexual problems are also common; however, sexual dysfunction (SD), defined as impairments in sexual function causing personal distress, are inadequately described among BCS on AET. Hence, SD may be underreported in both clinical studies and the daily clinic.

The primary aim of this study was to estimate the prevalence of clinically relevant SD and to identify possible predictors of SD among BCS on AET.

We conducted a cross-sectional survey among BCS who have been treated with AET's for more than 3 months, with no actual signs of recurrent disease and no previous cancer diagnosis.

The survey consisted of questions regarding demographic factors, present and previous symptoms. The following validated questionnaires were used: Female Sexual Function Index (FSFI), Sexual Complaint Screener – Women (SCS-W), Beck Depression Inventory (BDI), International Consultation on Incontinence Modular Questionnaire - Female Sexual Matters associated with Lower Urinary Tract Symptoms (ICIQ-FLUTSsex) and subscales of the Cancer Rehabilitation Evaluation System (CARES). Additionally, data concerning tumor characteristics and cancer treatment were collected from the medical records.

In total, 333 women with a mean age of 58.7 years were included in the study, of which 227 were sexually active. All were heterosexual. In the entire cohort, the most prevalent impairments were low libido (54%), anorgasmia (26%) and lack of arousal (25%). Although dyspareunia was the least frequent impairment reported by BCS (21%), it was the most distressing symptom. Urogenital symptoms were common with 47% of the women reporting vaginal dryness and 38% reporting pain with sexual intercourse.

The sexually active BCS were younger, more often partnered, and more satisfied with their sexual life before the cancer diagnosis than those women being sexually inactive.

Among the 227 sexually active women, 134 (59%) qualified for having SD. Of these 134 women, 78 (58%) perceived the cancer treatment as the primary reason for their sexual problems.

In a multivariate analysis, the risk of having SD was significantly associated with experiencing more vaginal dryness and less psychological well-being. Whereas age, relationship satisfaction and duration of AET were not significantly associated with the risk of having SD.

In conclusion, SD was highly prevalent among sexually active BCS on AET and was perceived as a long-term side effect of BC treatment by two thirds of BCS with SD. Vaginal dryness was the strongest predictor of SD. Of note, age was not related to neither prevalence of SD nor the degree of distress caused by the impairments. Hence sexual health is an important topic for BCS and should be addressed by the clinician at follow up visits of BCS independent of their age

## BACKGROUND

Impairments in sexual function are common among breast cancer survivors (BCSs), particularly in BCSs receiving adjuvant endocrine therapy (AET). Whether these impairments cause personal distress, thus qualifying for a diagnosis of sexual dysfunction (SD), is inadequately described in the literature

## OBJECTIVES

Primary aim:

- to estimate the prevalence of clinically relevant SD and to identify possible predictors of SD among BC) on AET.

Secondary aims:

- to assess the degree of personal distress caused by the specific impairments in sexual function
- to analyze if these were perceived as consequences of the breast cancer treatment by the BCSs

## METHODS

A survey-based, cross-sectional cohort study

Conducted from April 2018 to May 2019 at Aarhus University Hospital and Aalborg University Hospital, Denmark.

**Inclusion criteria:**

- female gender
- ≥18 years of age
- current treatment with AET for ≥3 months,
- completion of all primary treatment (surgery, radiation therapy, CT) for BC stages 0-III,
- currently no clinical evidence of recurrent disease.

**Exclusion criteria:**

- other cancer diagnosis, except non-melanoma skin cancer,
- vaginal bleeding of unknown etiology <12 months prior to inclusion,
- current treatment with antipsychotics,
- history of radiation to the vaginal area.

**The participants filled in the following questionnaires:**

- The Female Sexual Function Index (FSFI)
- The Sexual Complaint Screener – Women (SCS-W)
- The International Consultation on Incontinence Modular Questionnaire - Female Sexual Matters associated with Lower Urinary Tract Symptoms (ICIQ-FLUTSsex)
- The Beck Depression Inventory (BDI)
- Subscales of the Cancer Rehabilitation Evaluation System (CARES)

*Sexual dysfunction (SD) was defined in accordance with the DSM-V and ICD-11 as a persistent impairment in sexual function (≥6 months) causing personal distress [ref].*

## RESULTS

N=333,

Mean age: 58.74 ± 10.13 (22 - 80)

227 women were sexually active, of which 134 (59%) qualified for having SD:

Of the 134 sexually active BCSs with SD, 114 experienced their sexual life as worse or much worse after BC, and 78 BCS believed the change to be due to the cancer treatment.

Table 1: Distress related to individual impairments N=333

| Impairment      | N   | %   |
|-----------------|-----|-----|
| Low libido      | 154 | 54% |
| Anorgasmia      | 86  | 26% |
| Lack of arousal | 83  | 25% |
| Dyspareunia     | 70  | 21% |

Table 2. Adjusted odds ratios for sexual dysfunction according to age, vaginal dryness, psychological well-being, relationship satisfaction and duration of AET

| Variable                  | N (%)    | OR (95% CI)      | p     |
|---------------------------|----------|------------------|-------|
| Age*                      | 216      | 1.03 (1.00-1.07) | 0.06  |
| Vaginal dryness*          | 216      | 2.25 (1.52-3.34) | <0.01 |
| Psychological well-being* | 216      | 1.11 (1.03-1.18) | <0.01 |
| Relationship satisfaction |          |                  |       |
| 0-0.22 (median)           | 97 (45)  | - ref            |       |
| 0.22-2.89 (max score)     | 119 (55) | 1.27 (0.67-2.42) | 0.46  |
| Duration of AET*          | 216      | 1.00 (0.99-1.01) | 0.59  |

\* Continuous variable

Level of significance (p<0.05)

AET = Adjuvant endocrine therapy

## CONCLUSIONS

- SD was highly prevalent among sexually active BCS on AET
- SD was perceived as a long-term side effect of BC treatment by two thirds of BCS with SD.
- Vaginal dryness was the strongest predictor of SD.
- Low libido was the most common impairment in sexual function
- Dyspareunia was the most distressing
- Age was not related to neither prevalence of SD nor the degree of distress caused by the impairments.

Sexual health is an important topic for BCS and should be addressed by the clinicians at follow up visits of BCS independent of their age

## REFERENCES

- Reed, G.M., et al., Disorders related to sexuality and gender identity in the ICD-11: revising the ICD-10 classification based on current scientific evidence, best clinical practices, and human rights considerations. World Psychiatry, 2016. 15(3): p. 205-221.

The study was supported by a grant from the Danish Cancer Society