Full Length Research Article

Advancements in Life Sciences – International Quarterly Journal of Biological Sciences

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Characteristics of Patients with Breast Cancer Attending the Breast Cancer Center in Sudan

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Abstract

Background: Breast cancer is one of major health problems worldwide with increasing prevalence and accounts for comprising 16 percent of all female cancers. Objective of this study is investigated about the characteristics of patients with breast cancer attending the breast cancer center in Sudan to understand reasons for late diagnosis.

Methods: Cross sectional descriptive study conducted; 200 women attending at the oncology center of the capital city participated.

Results: Breast cancer was more prevalent among the age group of (31-40) with percentage of (39%), the reproductive characteristics of them indicated that (30%) did not have children, while 29% had more than two children, (46.5%) had menarche at age of (<11 year), (67.5%) were at Pre-menopause status, while (32.5%) were at post-menopause (48%) of earned income between (0-1000SDG) per month, reflecting the low-socio-economic status of them, as they did not have enough income for proper diagnosis and treatment, while the service is not free, concerning body weight, (31%) was overweight (25 -29.9 Kg/ m²), while (4.5%) of them had morbid obesity(≥ 40 Kg/m²).The results also showed that(71%) took vitamin as a supplement.

Conclusion: The study concluded that the cost of service and lack of awareness hindered early detection among low socio-economic status patients.

Introduction

Cancer considered as a major reason of mortality globally. Approximately 12.7 million new cancer cases registered in 2009, In about 715,000 patients this was leading to 542,000 deaths in Africa [1,2].

These cases maybe doubled to 1.28 million discovered, and 970,000 deaths in year 2030. This development in the cases in Africa can be due for both older ages increase and normal increase of number of people, unhealthy lifestyles also correlated with cases increasing such drug abuse, fast foods, and a lack of physical activity [3].

To study about the factors that lead to late diagnosis among Sudanese women attending Oncology center for breast cancer in Khartoum, Sudan.
To identify characteristics of patients and the risk factors in Sudanese woman attending oncology center of the capital Khartoum.

Methods

Study design
Descriptive cross-sectional study.

Study area
Capital center for oncology and breast cancer

Study population
All females who were attending in Khartoum oncology center during research period.

Sample size
Sample taken by total coverage of patients; the number of patients was (N=200).

Methods of data collection
Primary sources: Data was collected using questionnaires to gather information about the female patients' socio-demographic data, anthropometric measures (Body mass index) and risk factors that contributed to the breast cancer.

Secondary sources
The secondary data collected from different references, internet, and relevant research and studies.

Method of data analysis
The data were analyzed using the Statistical Package for Social Science (SPSS) with the version (20).

Ethical consideration
1-The approval was taken from the Ministry of Health IRB number (112.03.2021).
2-Approval was taken also from the Oncology center for breast cancer.

3-Research purpose and objectives were explained to female patients in clear simple words.

Results

Age	No.	Percentage
20-30year	26	13.0
31-40year	78	39.0
41-50year	56	28.0
⩾51	40	20.0
Total	200	100.0

Table 1: Age of female patients diagnosed, N=200.

Table 1 shows that 39% of female patients in the age group of (31-40) and (13%) of them at the age group of (20-30) year old.
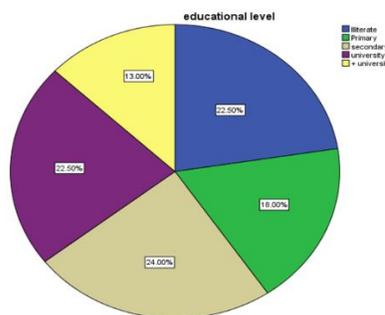

Figure 1: Educational level of female patients with breast cancer in Khartoum state year, N = 200.

Period of having breast cancer	No.	Percentage
Less than a month	65	32.5
Month – one year	115	57.5
More than one year	20	10.0
Total	200	100.0

Table 2: Period of having breast cancer from detection date N =200

Table 2 reveals that (57.5%) female patients detected breast cancer a month ago, 57.5% had detected breast cancer between month and one year and only (10%) of them had detected breast cancer for more than one year. Showing problem of late detection.

Monthly household income:	No.	Percentage
0 – 1000	96	48.0
1001 – 2000	71	35.5
2001 & more	33	16.5
Total	200	100.0

Table 3: Monthly income of having breast cancer of female patients with breast cancer, N =200

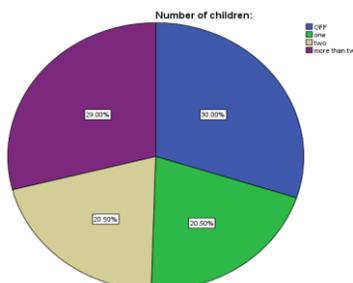Table 3 reveals that (48%) of female patients had low incomes, while (16.5%) had high income.

Figure 2: Number of children of having breast cancer of female patients with breast cancer. N =200. Shows that (30%) of female patients did not have children, while (29%) had more than two children.

Average duration of breastfeeding	No.	Percentage
None	103	51.5
0 -< 1	72	36.0
≥1	25	12.5
Total	200	100.0

Table 4: The duration of breastfeeding of children of having breast cancer, N =200

Table 4 reveals that (51.5%) of female patients did not breastfeed and (12%) breastfed their children for more than one year.

Average duration of breastfeeding	No.	Percentage
None	103	51.5
0 -< 1	72	36.0
≥1	25	12.5
Total	200	100.0

Table 5: The age of menarche of breastfeeding of children of having breast cancer, N =200

Table 5 reveals that (51.5%) of female patients did not breastfeed and (12%) breastfed their children for more than one year. Demonstrates that (67.5%) of the female patients were in Pre-menopause stage while (32.5%) were on menopause stage.

Menopausal status	No.	Percentage
Pre-menopause	135	67.5
Post-menopause	65	32.5
Total	200	100.0

Table 6: Menopausal status of breastfeeding children having breast cancer, N =200

Table 6 demonstrates that (67.5%) of the female patients were in Pre-menopause stage while (32.5%) were on menopause stage.

Menstrual cycle:	No.	Percentage
Regular	99	49.5
Irregular	101	50.5
Total	200	100.0

Table 7: Regularity of menstrual cycle, N =200

Table 7 shows that (50.5%) of female patients had irregular menstrual cycle while (49.5%) did not have regular menstrual cycle.

Body mass index	No.	Percentage
Underweight <18.5	55	27.5
Normal (18.5 – 24.9)	36	18.0
Overweight (25 -29.9)	62	31.0
Class I obesity (30 – 34.9)	15	7.5
Class II obesity (35 – 39.9)	23	11.5
Class III morbid obesity (≥ 40)	9	4.5
Total	200	100.0

Table 8: Body mass index, N =200

Table 8 demonstrates that (31%) of the female patients were overweight While (4.5%) of them had morbid obesity (≥ 40 Kg/m²).

Oral contraceptive pills:	No.	Percentage
Using oral contraceptives	86	43.0
Never use	114	57.0
Total	200	100.0

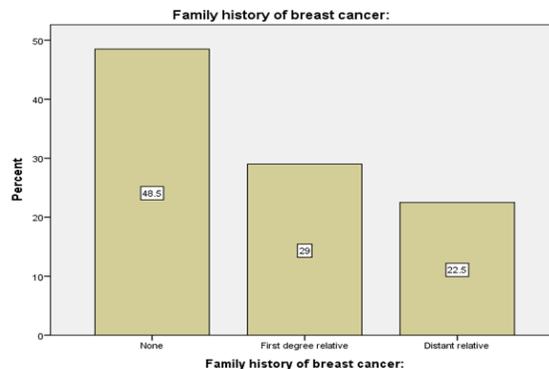**Table 9:** Oral contraceptive pills of female patients with breast cancer, N =200

Figure 3: Family history of female patients with breast cancer in N =200Reveals that (48.5%) of female patients did not have a family history of cancer, while (22.5%) had a distant relative of breast cancer.

Hormone replacement therapy:	No.	Percentage
Using hormone replacement therapy	115	57.5
Never use	85	42.5
Total	200	100.0

Table 10: Hormone replacement therapy, N =200

Table 10 demonstrates that (57.5%) of the female patients used Hormone replacement therapy while (42.5%) of them did not use it.
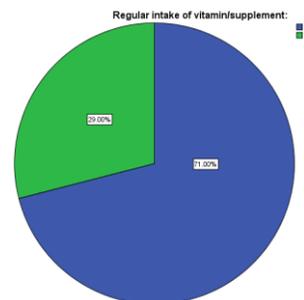

Figure 4: The regular intake of vitamins supplements, N =200

Figure 4 shows that (71%) of female patients took vitamins/supplement while (29%) of them did not take vitamin as the supplement. Reveals that (53.5%) of female patients did not take traditional medicine and (46.5%) of them took traditional medicines.

Ever smoke cigarettes:	No.	Percentage
No	121	60.5
Yes	79	39.5
Total	200	100.0

Table 11: Smoking cigarettes among study group, N=200

Table 11 shows that (60.5%) of the female patients were not smokers and (39.5%) of them Smokers.

Previous breast biopsy:	No.	Percentage
Yes	97	48.5
No	103	51.5
Total	200	100.0

Table 12: Previous breast biopsy, N =200

Table 12 reveals that (51.5%) of female patients did not have previous breast biopsy and (48.5%) of them had previous breast biopsy.

Discussion

Research was designed to investigate about the characteristics of patients with breast cancer attending the breast cancer center in Sudan to understand factors that lead to late diagnosis among Sudanese women. The results demonstrated that the prevalence of breast cancer was (39%) among the age group of 31-40. Pervious study found that breast cancer was common at the age of ≥20, and the incidence increasing rapidly between the age of 35 & 50 [1]. Regarding educational level, (24%) of female patients had secondary school education while (13%) had post university education level. Education can contribute to the patients' awareness.

Study showed that almost half of the female patients (48%) earned income between (0-1000SDG),this reflects the poor socio-economic status of them, as they did not have enough income for proper diagnosis and treatment [1].

Regarding the reproductive characteristics of the patients, the result indicated that, (30%) of the female didn't have children, while 20.5% had one to two children, previous study revealed that having many children were related to risk of breast cancer [2].

The present study showed that (71%) took vitamin as a supplement while (21%) did not take it A significant reduction of vitamin supplement that used as therapy may accelerate the spreading of breast cancer [2].

The results clarified that (46.5%) of the female patients had menarche at age of (<11 year), has been mentioned in the literature early menarche can be considered as a risk factor of breast cancer [3].

The present study showed (67.5%) of the female patients were at Pre-menopause status, while (32.5%) were in post-menopause. Previous studies revealed that pre-menopausal women, who tended to have irregular menstrual cycles and greater tendencies for an ovulatory cycle, may increase the risk of breast cancer [3].

It was clarified that (31%) of the female patients were overweight (25 -29.9 Kg/ m²), while (4.5%) of them had morbid obesity (≥ 40 Kg/m²). However, the relationship between that and breast cancer is complicated [4].

The study revealed that, (60%) of female patients consumed a low fat diet and (40%) of them did not consume a low fat diet. Eating a high-fat diet may also play a role in causing breast cancer. Breast cancer is less common in countries where the typical diet is plant-based and low in total fat [5].

Regarding smoking, (60.5%) of the female patients were not smokers and (39.5%) were smokers. Previous study revealed that liquid found in breast ducts of female patients' smokers contains high chemical substance as the result of smoking (e.g., Polycyclic Aromatic Hydrocarbons (PAHs) which are linked to breast cancer). However heavy smoking cigarettes for many years, especially if individual started smoking at young age will increase the risk of breast cancer [6].

Risk factors of breast cancer more prevalent among the age group of 31-40 years, with low socio economic status in Sudan, this factor leads to late diagnosis because the service is not for free, in addition to other factors including general economic situation of the country, lack of awareness raising programs, the service is not distributed in all states of the country and not enough even in the capital itself [7].

Competing Interest

Author declares that there is no conflict of interest.

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