Original Article

A cross-sectional study on socio-demographic profile of patients with confirmed benign breast disease in a tertiary care hospital

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Abstract
Objective: *To assess the socio-demographic profile of patients with confirmed benign breast disease in a tertiary care hospital.*
Methods: *This was a cross-sectional study conducted in a tertiary care hospital. Only patients having benign breast disease (BBD) were included in the study. Their socio-demographic factors were noted.*
Results: *About half of patients were between 21-30 years (51.3%). More than half of patients belonged to urban area (65.4%). About half of the patients had age at menarche 12-13 years (53.8%). More than one third of patients had age at first pregnancy 21-23 years (41.8%). About one third of patients had parity 3 (30%) followed by 2 (26.7%). More than half of patients were thin built (60.3%).*
Conclusion: *There is an urgent need to have in place a population screening program for early detection, objective poverty alleviation program and improved accessible and affordable health care delivery service. Further studies in this field are warranted to raise the awareness of the behavior of benign breast disease in this population.*
Keywords: *Socio-demographic, Breast disease, Malignancies.*

Introduction

Benign breast disease (BBD) includes the heterogeneous group of lesions with a variety of histological subtypes and occurs more frequently than breast cancer (BC). The etiology has been attributed to hormone level changes during the life of women and to the reproductive cycles, in particular, which contributes to the differentiation in breast structure and cellularity (Guray and Sahin, 2006). Therefore, recognizing benign breast lesions becomes crucial to facilitate selecting the most suitable treatment plan for each type (Lisiane et al, 2016).

Breast cancer has been recognized as a public health problem, because of its repercussions on the social, health / morbidity, psychological and economic factors in society. In the breast disease process, the psychosocial impact is evident by high anxiety levels and or depression and patient concern regarding body image and sexuality

(Patrãoand Leal, 2004). Another major concern is the high cost, whether direct (outpatient, hospital, drugs) or indirect (absenteeism, early retirement, loss of productivity) (Lisiane et al, 2016).

Benign Breast Diseases (BBDs) is one of the most common diseases in the females of any society. It is a group of breast diseases which is troublesome to the patient but is not cancer, nor do they progress to cancer. Up to 30% of women suffer from some benign breast disorders and this compels them to seek treatment (Yadava et al, 2003). Throughout the world, it has been proven that benign breast diseases are more prevalent when compared to malignancies of breast. In a study conducted in Nepal revealed that benign breast conditions were 61.7% whereas malign-ancy accounted for 15.3% (Karki et al, 2015).

The present study was conducted to assess the socio-demographic profile of patients with confirmed benign breast disease in a tertiary care hospital.

Material and Methods

This was a cross-sectional study conducted in a tertiary care hospital. The study was approved by the Ethical Committee of the Institute. The consent was taken from each participant before including in the study. The patients were thoroughly examined and diagnosis was made on the basis of previously pathological reports. Only patients having benign breast disease (BBD) were included in the study. Their socio-demographic factors were noted.

The socio-economic status (SES) was defined as i. low – income per month being <Rs. 1200, ii. Middle- Rs. 1200-2000, iii. High- Rs. >2000.

The results are presented in frequencies and percentages.

Results

About half of patients were between 21-30 years (51.3%) followed by 31-40 (23.1%), <20 (14.1%), 41-50 (9%) and > 50 (2.6%) years. More than half of patients belonged to urban area (65.4%). More than one third patients belonged to middle class SES (37.2%) followed by high (32.1%) and low (30.8%). More than one fourth of patients were educated upto high school (28.2%) and 21.8% educated upto junior high school. Majority of the patients were married (76.9%) (Table-1).

About half of the patients had age at menarche 12-13 years (53.8%) followed by 14-15 (28.2%), 16-17 (11.5%) and >17 (3.8%) years (Table-2).

More than one third of patients had age at first pregnancy 21-23 years (41.8%) followed by 18-20 (34.5%), 24-26 (12.7%), <18 (7.3%) and >26 (3.6%) years (Table-3).

About one third of patients had parity 3 (30%) followed by 2 (26.7%), 1 (15%), >4 (11.7%) and 0 & 4 (8.3%) (Table-4).

More than half of patients were thin built (60.3%) followed by average built (28.2%) and obese (11.5%)(Fig.1).

Table-1: Distribution of socio-demographic profile of BBD patients

Socio-demographic profile	No. (n=78)	%
Age in years		
<20	11	14.1
21-30	40	51.3
31-40	18	23.1
41-50	7	9.0
>50	2	2.6
Inhabitance		
Rural	27	34.6
Urban	51	65.4
Socio-economic status (SES)		
Low	24	30.8
Middle	29	37.2
High	25	32.1
Literacy status		
Illiterate	6	7.7
Primary	8	10.3
Junior high school	17	21.8
High school	22	28.2
Intermediate	15	19.2
Graduate	7	9.0
Post graduate	3	3.8
Marital status		
Married	60	76.9
Unmarried	18	23.1

Table-2: Distribution of BBD patients according to age at menarche

Age in years	No. (n=78)	%
12-13	42	53.8
14-15	22	28.2
16-17	9	11.5
>17	3	3.8

Table-3: Distribution of BBD patients according to age at first pregnancy

Age in years	No. (n=55)	%
<18	4	7.3
18-20	19	34.5
21-23	23	41.8
24-26	7	12.7
>26	2	3.6

Table-4: Distribution of BBD patients according to parity

Parity	No. (n=60)	%
0	5	8.3
1	9	15.0
2	16	26.7
3	18	30.0
4	5	8.3
>4	7	11.7

Table-5: Distribution of BBD patients according to body weight

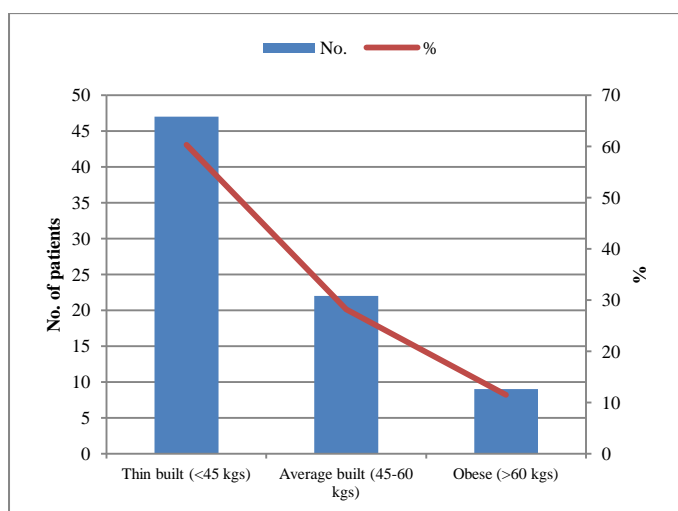| Body weight	No. (n=78)	%
Thin built (<45 kgs)	47	60.3
Average built (45-60 kgs)	22	28.2
Obese (>60 kgs)	9	11.5

Fig. 1: Distribution of BBD patients according to body weight

Discussion

Worldwide, it is estimated that more than one million women are diagnosed with breast cancer every year, and more than 400,000 will die from the disease (Tfayli et al, 2010). The incidence of breast cancer in Nigeria in 1976 was 15.3 per 100,000 but rose to 33.6 per 100,000 by 1992. Despite this doubling in incidence, many clinicians believe that there is under-reporting owing to low awareness, poor access to medical services, poverty, socio-cultural factors and absence of a screening programme. Population based epidemiological study in 1999 showed that the prevalence of breast cancer in Nigeria was 116 cases per 100,000 women per year (Adebamowo and Ajayi, 2000).

Breast is a dynamic organ which continuously undergoes normal structural and physiological changes. When these normal changes (pubertal, cyclical, pregnancy, lactational and menopausal) exceed their limit and raise concern for the woman, they are labelled as BBD.

In the present study, most of the BBD patients were young and premenopausal or perimenopausal. This finding is in agreement with the study by Ganiyu et al (2014). This is similar to studies from other African centres where the mean age is 48 years and approximately two-thirds are premenopausal (Adesunkanmi et al, 2006; Rambau et al, 2010).Findings from north Indian population showed mean year 47.39 +/- 10.90 in female and 56.5+/-7.77 for male breast cancers and 65.8% patients were below 50 years of age (Sandhu et al, 2010). Raina and associates reported median age of 47 years in their patients with equal distrubution of premenopausal and postmenopausal status (Raina et al, 2005).

Though nulliparity and low parity is said to be associated with increased risk of breast cancer, in this study majority of the patients are multiparous. it confirms other studies that have shown that the higher the parity is associated with triple negative breast cancer (Millikan et al, 2008; Kwan et al, 2009).

The literature reports age of menarche lower than 12 years as a risk factor for breast cancer, probably due to the prolonged exposure of the breast epithelium to estrogen and progesterone induced by the early onset of the regular menstrual cycles and ovulation (Bernstein, 2002). In the present study, about half of the patients had age at menarche 12-13 years (53.8%) followed by 14-15 (28.2%), 16-17 (11.5%) and >17 (3.8%) years.

In the present study, more than one third of patients had age at first pregnancy 21-23 years (41.8%) followed by 18-20 (34.5%), 24-26 (12.7%), <18 (7.3%) and >26 (3.6%) years. More than half of patients were thin built (60.3%) followed by average built (28.2%) and obese (11.5%). It has been reported that age at menarche and age of first pregnancy appear to have no bearing on breast disease (Goehring and Morabia, 1997). In a study, the patients with increasing body mass index (BMI) had a lower incidence of BBD (O'brien and Kowdley, 2014).

Conclusion

There is an urgent need to have in place a population screening program for early detection, objective poverty alleviation program and improved accessible and affordable health care delivery service. Further studies in this field are warranted to raise the awareness of the behavior of benign breast disease in this population.

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