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Clinicopathological Profile of Breast Cancer Patients in Tertiary Hospital, Medan, Indonesia.

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ABSTRACT

Breast cancer is the most common cancer among women and the prevalence of breast cancer has been increased worldwide. This present study aimed to evaluate demographic profile, presentation of clinical, pathological features of breast cancer patients diagnosed and managed in our tertiary hospital in Medan, Indonesia. We reviewed the data from medical records of patients which pathologically diagnosed and have treatment in hospital from 2011 to 2015. The amount of data were 107 patients. The researcher also recorded the clinicopathological data including symptoms, site of lump and histopathology infiltrating duct carcinoma. The demographic data including sex, age, family history, habits and parity.among 107 cases, all the patients were female (100%) with mean age 42.3 years old. Most of the patients were post menopause patients (65.42%) , BMI 27.45 Kg/m2 and lower parity (33.64%). Main clinical symptoms were breast lump and most of the patients presenting infiltrating duct carcinoma.

Keywords: Breast cancer, clinical profile, demographic, Medan, Indonesia

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INTRODUCTION

Breast cancer is a malignant disease that is most common and also the leading cause of death by cancer among women in developed countries and developing countries [1]. Approximately 1.4 million new breast cancer cases are diagnosed each year, of whom approximately one-third die of the disease [2].WHO reported that there are 209.000 new cases in Asia, especially South-east Asia and at present, breast cancer is the fifth highest cancer that causes death among other kinds of cancer [3]. Breast cancer survival rates of women in Asia are approximately half of their Western counterparts. In Indonesia, breast cancer is still the most common cancer and the most important women's health issue [4]. With the rapid evolution in socioeconomic status and lifestyle, the prevalence of breast cancer is growing worldwide lead to huge burden on healthcare system. WHO proposed that early detection and screening, especially when combined with adequate therapy should offer the most immediate hope for a decrease in mortality due to breast cancer [5]. A number of studies on breast cancer in Indonesia related to the clinical and pathological profiles have been published. But the availability of data related to demographic factors, clinical and pathological factors in breast cancer cases in the Medan city, North Sumatera, Indonesia is still very limited. Present study aimed to evaluate demographic profile, presentation of clinical, pathological features of breast cancer patients diagnosed and managed in our tertiary hospital in Medan, Indonesia

MATERIALS AND METHODS

This present retrospective study was conduted in tertiary Hospital, Medan, which is a tertiary type hospital which provide health services to cancer patients from urban and rural areas of North Sumatera and adjoining regions. With the approval of Director of Tertiary Hospital, we reviewed the data from medical records of patients which pathologically diagnosed and have treatment in hospital from 2011 to 2015. The amount of data were 107 patients. The researcher also recorded the clinicopathological data including symptoms, site of lump and histopathology infiltrating duct carcinoma. The demographic data including sex, age, family history, habits and parity.

STATISTICAL ANALYSIS

The data was compiled in Microsoft excel. The descriptive analysis of baseline demographic, clinical and pathological characteristic then performed

RESULT AND DISCUSSION

From 2011 to 2015, there were 107 breast cancer patients were diagnosed and treated in tertiary hospital. Demographic data were shown in Table 1

Table 1: Demographic of patients

Variables	Number of cases (n=107)	Percentage (%)
Sex		
Male	none	0%
Female	107	100%
Age (Mean) years	42.3	
Range	33-58	
Family History		
Yes	45	42.05%
No	62	57.94%
Habits		
Alcoholic	none	0%
Smoking	26	24.3%
Menstrual status		
Premenopausal	37	34.57%
Menopause	70	65.42%
Residency		
Urban	62	57.94%

Rural	45	42.05%
Body Mass Index (Kg/m2)	27.45	
Age at menarche	12.32	
Age at first pregnancy (mean)	28.6	
Parity		
0	None	0%
1-2	36	33.64%
2-3	32	29.90%
3-4	24	22.43%
5 and above	15	14.01%
Mean age at menopause	50.4	
Past history of breast biopsy	29	27.10%

Based on the data above, all breast cancer patients (100%) were female with average age 42.3 years old. Most of patients have no family history in breast cancer (57.94%). As many as 24.3% of total patients were smoker. Ilic et al [6] reported that when smokers were compared with non smokers without passive exposure to smoking, former smoking significantly increased breast cancer risk (OR=2.37;95% Cl=1.07-5.24), then it was suggested that cigarette smoking is associated with an elevated risk of breast cancer among women. Tobacco smoke contains chemicals which are carcinogenic to humans and can cause mammary tumors in animals [7]. Based on menstrual status, the majority of breast cancer (60%) were menopause patients.Colditz et al [8] reported that among postmenopausal women, age at menopause showed a stronger relation with risk of breast cancer among women with no family history of breast cancer than among women with a positive cancer history of breast cancer, and among post menopausal women, the current use of replacement hormones is associated with increased risk.

From the table the mean body mass index of the patients was 27.45 Kg/m^2. Chow et al [9] in their study reported that BMI at diagnosis as positively correlated with the risk of breast cancer among post menopausal women (p<0.001 for trend). When compared with women with a low BMI (<19), women with a BMI of 23-27 and 27-31 had a 1.73 fold (95% confidence interval, CI 1.04-2.86) and 2.06 fold (95% Cl, 1.08-3.93) increased risk of breast cancer respectively after adjustment for non-anthropometric risk factors. Furthermore, present BMI and BMI 5 years before diagnosis were poorly associated with breast cancer risk among both pre and post menopausal women.

Based on data the number of patients with higher parity were less than patients with lower parity. Nguyen et al [10] reported that the most profound risk factor was parity. Compared to nulliparous women, increasing parity was associated with a significantly decreased risk of breast cancer; that is, for four or more births, the unadjusted odds ratio was 0.16 (95% Cl 0.04-0.55, p=0.004) and the adjusted odds ratio was 0.17 (95% Cl 0.05-0.63, p=0.008). Another study reported that early age at menarche, nulliparity, low parity and late age of first birth were correlated with breast cancer risk in a Japanese case-control study [11].

The distribution of clinical and histological presentation of breast cancer patients were showed in Table .2

Table 2: Distribution of Clinical and Histological Presentation of Breast Cancer Patients

Characteristics	Number of Patients	Percentage
Symptoms		
Lump in breast	100	100%
Lump with pain	10	9.34%
Lump with nipple discharge	5	4.67%
Site of lump		
Left breast	52	48.6%
Right breast	57	53.37%
Histopathology infiltrating duct carcinoma	100	94.45%

The most common symptoms in our patients of our hospital was a lump in the breast are that are both left and right breast with nearly the same number of patients. The classic symptoms for breast cancer is a lump found in the breast or armpit. The general alerting features of breast cancer are including swelling or lump (mass) in the breast, swelling in the armpit (lymph nodes), nipple discharge (clear or bloody), pain in the nipple, persistent tenderness of the breast and unusual breast pain or discomfort [12]. Most of the patients also developed infiltrating duct carcinoma. Infiltrating duct carcinoma (IDC) also known as invasive ductal carcinoma, is the most common form of breast cancer. IDC starts in the breast's milk ducts and invades the surrounding breast stroma. Bhandari et al [13] reported that IDC is the most common pathological type accounting for over 70% of invasive breast cancer. Infiltrating lobular, medullary and colloid carcinoma, paget's disease and other pure and combined types constitute the remaining 30%. Dauda et al [14] also reported that out of 172 cases of breast cancers analysed 7(4%) were in males while the remaining 165 (96%) were in females and the most common histopathological type of breast cancer found in the study IDC accounting for 78.8% of cases.

CONCLUSION

Data from our present study suggests high incidence of breast cancer in postmenopause women and the prevalent risk factors in our study in were lower parity, menopause status and obesity, main clinical presentation was lump in breast and the most frequent in histological type is infiltrating duct carcinoma.

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