

STAGE AT PRESENTATION OF BREAST CANCER IN HOSPITAL SEGAMAT - A
DISTRICT HOSPITAL RETROSPECTIVE REVIEWNorly Salleh*^{1,2}, Maszuraidah Md. Charep¹, Aida Surya Othman¹ and Mastura Hasanah Bashri³¹Department of Surgery, Hospital Segamat, Johor, Malaysia.²Satelit Clinical Research Centre, Hospital Segamat, Johor, Malaysia.³B-Care, Department of Surgery, Hospital Segamat, Johor, Malaysia.

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ABSTRACT

Background: Breast cancer is the leading cause of cancer-associated death in women. Malaysian women tend to present late and this poses a challenge to the healthcare provider. B-Care or Breast Cancer Resource Centre is a walk in clinic that was established in our hospital since 2014. One of the reasons of its establishment is to overcome the accessibility problem that our patients might have, therefore, improving the stage at presentation and subsequently the prognosis. This study was done to characterize breast cancer at presentation for our population since the introduction of B-Care. **Methods:** This is a retrospective, observational study of all newly diagnosed breast cancer patients presented to our centre from January 2017 till January 2019. Patients with recurrent or previous contralateral breast cancers were excluded. Patients were identified from our database. Secondary data was collected and analysed. **Results:** A total of 73 patients were included in the study. The mean age at diagnosis was 54.1 ± 10.8 year (range 24-83 years). Most of them had no known risk factors. More than forty seven percent of patients presented with early stage of breast cancer (Stage 0-II) and 39.7% presented with late stage (stage III-IV). Most patients had surgery done. Modified radical mastectomy was performed in 56 patients (76.7%), 3 had toilet mastectomy (4.1%) and 10 had wide local excision of cancer (13.7%). **Conclusions:** The introduction of B-Care has improved the stage at presentation of our breast cancer patients' in Hospital Segamat.

KEYWORDS: breast neoplasms, humans, epidemiology, Malaysia, district hospital.

INTRODUCTION

Breast cancer is the leading cause of cancer-associated death in women. According to the National Cancer Registry Malaysia, the lifetime risk of developing breast cancer is 1 in 30 for all females and the incidence is highest in the Chinese population.^[1] Breast cancer prognosis is related to the stage at presentation and Malaysian women tend to present at a later stage.^[2] Most breast cancer research in Malaysia is done in university settings or in the urban areas. The findings may not reflect the situations in the rural areas where the patients are of different socio-economic status and education level.

Hospital Segamat is a district hospital located in the north state of Johor in Malaysia. It was established in 1995 and has 314 beds. It serves the people in the district of Segamat. It is also the nearest hospital for people residing in Gemas, Negeri Sembilan and southern part of Pahang. Accessibility to the hospital is one of the major issues for some of these patients as travelling to the hospital may take up to 2 hours and the majority of them come from an underprivileged background.

The department of surgery serves general surgery service that comprises of inpatient service, outpatient clinic service, surgery and endoscopy service. B-Care or Breast Cancer Resource Centre is a walk in clinic created to deal with all breast-related problems. It started operation since 17 August 2014. In the year 2016, there were 953 patients who used the service, but the number has increase to 1332 in 2019. Before the establishment of B-Care, the majority of patients presented at a late stage (stage III and IV) – 59.6%.^[3] One of the reasons for this late presentation was attributed to difficulty to access healthcare services. B-Care was set up to overcome this issue. Among services offered are early detection, treatment, education and prevention of breast cancer. This study was done to characterize breast cancer at presentation in our population since the introduction of B-Care.

MATERIALS AND METHODS

This is a retrospective, observational study of all newly diagnosed breast cancer patients presented to our centre from January 2017 till January 2019. Patients with recurrent or previous contralateral breast cancers were

excluded. Patients were identified from our Breast Cancer Database. Data were collected and analysed using IBM® SPSS® Statistics Version 22. The diagnosis of breast cancer in this study is done using the triple assessment (clinical examination, radiological imaging and histo-pathological study). The grading of the tumour was based on Bloom and Richardson grading system.^[4] The staging of primary tumour was based on the American Joint Committee on Cancer pathological cancer staging classification, seventh edition.^[5] Late presentation is defined as stage III and IV.

Ethics

This study was registered with the National Medical Research Register (NMRR-20-397-53162) and was approved by the Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia.

Funding

This study was not funded by any organization.

Conflict of Interest

There is no conflict of interest.

RESULTS

From January 2017 until January 2019, there were 73 patients who fit our inclusion and exclusion criteria. They were all female. The mean age at diagnosis was 54.1 ± 10.8 year (range 24-83 years). Most of them had no known risk factors. Patients' demographic and risk factors are presented in the table below (Table 1). The majority of our patients had infiltrating ductal carcinoma (93.2%) and positive oestrogen receptor status (60.3%). Breast lump was the major presenting complaint (91.8%), followed by nipple/skin retraction (8.2%), swelling/redness (2.7%), ulcer (1.4%) and mammogram alteration (1.4%).

Table 1: Patients' demographic and risk factors.

Baseline characteristics, n = 73	
Race	
Malay, % (n)	82.2 (60)
Chinese, % (n)	13.7 (10)
Indian, % (n)	4.1 (3)
Others, % (n)	0 (0)
Age	
Range (years)	24-83
Mean (years) ^a	54.1 ± 10.8
Parity	
Nulliparous, % (n)	13.7 (10)
Multiparous, % (n)	82.2 (60)
Unknown, % (n)	4.1 (3)
Previous Oral Contraception	
Yes	37.0 (27)
No	63.0 (46)
Family History of Breast/Gynaecological Cancer	
Yes	20.5 (15)
No	76.7 (56)
Unknown	2.7 (2)
n = number, ^a = Mean \pm S.D.	

Table 2: Histological characteristics of breast cancer in Hospital Segamat.

Category	Frequency (%)
Tumour pathology	
- DCIS	2 (2.7)
- IDC	68 (93.2)
- ILC	2 (2.7)
- Papillary carcinoma	1 (1.4)
Oestrogen receptor status	
- Yes	44 (60.3)
- No	20 (27.4)
- Not available	9 (12.3)
Progesterone receptor status	
- Yes	32 (43.8)
- No	33 (45.2)
- Not available	8 (11)

Her-2 receptor status	
- Yes	12 (16.4)
- No	33 (45.2)
- Not available	28 (38.4)
Bloom-Richardson grading	
- Grade 1	10 (13.7)
- Grade 2	22 (30.1)
- Grade 3	22 (30.1)
- Not available	19 (26.0)

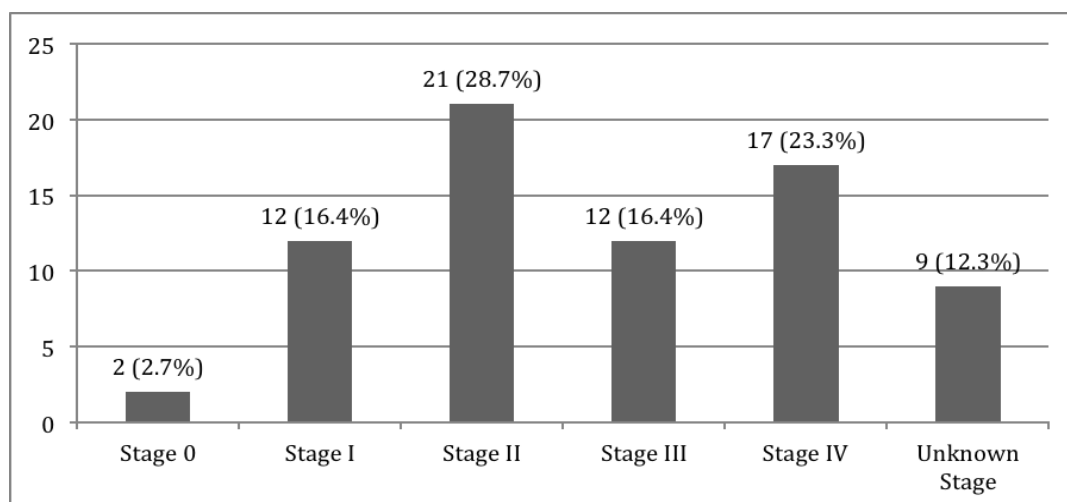


Figure 1: Stage at presentation of breast cancer in Hospital Segamat (n=73).

The result of our study showed that 47.8% of patients presented with early stage of breast cancer (Stage 0-II) and 39.7% presented with late stage (stage III-IV). Before B-Care was introduced, Chong et al found that 56.9% of the patients in Hospital Segamat presented in the late stage (3). Therefore there is an improvement of more than seventeen percent. However, more than twelve percent of our current study population had an unknown stage at presentation. This is because they either refused to be staged or they default the follow up.

For stage IV patients, fifteen patients had lung metastases (20.5%), nine had bone metastases (12.3%) and one had liver and brain metastases each (1.4%).

Modified radical mastectomy was performed in 56 patients (76.7%), 3 had toilet mastectomy (4.1%) and 10 had wide local excision of cancer (13.7%). Neo-adjuvant chemotherapy was given in 9 patients (12.3%). Thirty-two patients had adjuvant chemotherapy (43.8%) and twenty had adjuvant radiotherapy (27.4%). From our data 12 patients (16.4%) were Her-2 receptor positive but only 1 patient (1.4%) had trastuzumab therapy. Oestrogen receptor was positive in 44 patients (60.3%) and progesterone receptor was positive in 32 patients (43.8%). However only 31 patients (42.5%) had hormonal treatment. Three patients (4.1%) chose symptomatic treatment and nine patients (12.3%) opted for alternative treatment. Out of the 9 patients who went for alternative treatment, 8 were Malays.

DISCUSSIONS

We found that there is slight improvement in the stage at presentation of breast cancer in our patient population since the introduction of B-Care. B-Care was introduced to reduce the accessibility issues that some breast cancer patients might have. However there are a lot of other reasons as to why women present late. Lack of trust and confidence in modern medicine and belief in alternative medicine are some of the reasons.^[6] This is especially true in our Malay patients. As health care providers, we need to improve our approach in managing these patients so that they have confidence in modern medicine. We need to go to the ground level more to educate the public. Road shows need not only be done during the Pink October month but should be all year round. We also need to teach the public especially those in the deep rural areas on how to do self-breast examination. Women with lack of knowledge in self-breast examination also tend to present at a later stage.^[7]

From this study we also found that, despite patients presenting early to us, some patients do not go for the full treatment for their breast cancer. The number of patients who went for oncological treatment i.e. chemotherapy or radiotherapy is not as high as expected. One reason for this is because we do not have a resident oncologist in Hospital Segamat. Patients have to travel to another hospital to get chemotherapy or radiotherapy treatment. For our population, the nearest oncology centre is 157 km away in Johor Bahru. Some of the patients travelled 86 km to another hospital to see a

visiting oncologist who comes to visit every 3 weeks. This surely will cause a financial burden on these patients as most of them are from an underprivileged background. They need to spend money on the treatment as well as travel expenses. Some of them also need to use public transport that can be unreliable at times. One way to improve our service is to get oncology service in our own centre. However this seems a little bit far-fetched for the time being as in Malaysia currently there is a shortage of oncologists. There are only 6 existing Radiotherapy and Oncology Centers (RTOC) within the Ministry of Health (MOH), Malaysia. According to the MOH, there are only 114 oncologists in the country, 2.5 times fewer than the recommended 300 for Malaysia's 31.6 million populations.^[8] Of the 114, 68 are in the private sector, 33 in MOH hospitals, and 14 in universities.

As mentioned earlier, having cancer might cause a financial burden on our underprivileged patients. Trastuzumab is a monoclonal antibody that is used to treat patients with Her-2 positive breast cancer. The treatment is expensive and lack of funding means that many patients are denied the treatment. Even though the price for this treatment has dropped significantly in the last few years, it is still beyond the financial capabilities of the majority of our patients. That is probably one of the reasons why only one patient had trastuzumab therapy even though twelve patients might benefit from it. This will definitely affect the prognosis and survival of our patients. Fenn et al found that increased financial burden as a result of cancer care costs is a predictor of poor quality of life among cancer survivors.^[9]

This study has shown that having a one-stop breast centre does help in the terms of accessibility issue for our patients. More patients are presenting early since the introduction of this centre. However there is still more to be done to improve the management of breast cancer in our centre. Being a district hospital, our resource is somewhat limited, but we should not let this be an excuse for us not to provide optimum care for our patients.

CONCLUSIONS

The introduction of B-Care has improved the stage at presentation of our breast cancer patients' in Hospital Segamat. However we must not be complacent as our performance is still far behind those in the developed countries who have a higher incidence rate but lower mortality rate. The limitation of this study is that we used secondary data and we did not compare the data from before and after the introduction B-Care. We only compared with the results done by previous researchers in the same study population. This is because poor record keeping from previous years makes tracing data difficult.

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