ORIGINAL ARTICLE

The Breast Clinic in University Hospital – A Four-Month Survey

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Summary

The breast clinic in the university Hospital Kuala Lumpur was started in August 1993 to cater for the increasing number of women seeking treatment for breast complaints. A four-month survey carried out from January to April 1994 found that Chinese women are more "breast conscious" than Malay and Indian women. The majority of patients were in the reproductive age group. Benign breast diseases form the majority of cases of breast diseases seen. The pick-up rate for new cases of breast cancer was 3.1%. Fine needle aspiration biopsy had a 100% sensitivity during the four-month study, and was a quick method of obtaining a diagnosis.

Key Words: Breast clinic, Benign breast disease, Fine needle aspiration cytology

Introduction

Women in our society are becoming more aware of breast diseases and their significance. This "breast awareness" is probably the result of numerous articles in newspapers and women's magazines on breast cancer. Because of this, more women are seeking advice and treatment for various breast complaints. A proportion of these complaints, especially cyclical breast pain and congestion, are harmless and require reassurance only. However a number of patients will require further investigations and treatment. Hence there is a need to set up a special clinic to cater for the increasing number of women seeking medical advice for breast problems and also to standardise the management of breast diseases. In this way, we hope to provide a better and more efficient service for women, with minimal delay in making a diagnosis, and to provide reassurance to the large number of women with harmless breast complaints who are worried in case they have breast cancer.

The breast clinic in the University Hospital Kuala Lumpur was started in August 1993. A 4-month survey was done from January to April 1994 to assess the following:-

1. Race and age incidence of patients attending the clinic
2. Types of breast diseases seen
3. The sensitivity of fine needle aspiration biopsies done in the clinic.

Materials and Methods

Between January 1994 and April 1994, 746 patients were seen in the Breast Clinic in the University Hospital Kuala Lumpur. These were both follow-up as well as new patient. If the patients had a definite lump, fine needle aspiration cytology was carried out at the same time. This was done either by the surgeon or the cytologist. The clinical diagnosis was available to the cytologist. If the lump was clinically suspicious,

immediate staining was done to assess whether the sample was adequate, and the patient given a follow-up the following week. If there was no clinical suspicion of malignancy, the patient was given a 2-4 weeks' follow-up. If the aspirate was not satisfactory, a repeat aspirate was carried out.

Mammography was carried out whenever appropriate before the aspiration cytology. Patients with a definite breast lump or generalised lumpiness of the breast were sent for mammography if they were 35 years and above.

Cases of breast abscesses or advanced breast cancers that were seen in the Casualty Unit or the other surgical Walk-in clinics were admitted directly to the ward and hence were excluded from this study.

Results

A) Race and Age Incidence

Out of the 746 patients seen, there were 350 Chinese (46.9%), 239 Malays (32.0%) and 157 Indians and others (21.1%) (Table I). Compared with the percentage of adult women seen in the surgical outpatient clinic from the three main races, there was a significantly higher number of Chinese women compared to the other two races ($P<0.05$). The majority of the patients were aged between 20 to 49 years (Fig. 1).

Table I
Breast clinic race and age incidence

Race	No.	%	% of female surgical out-patients
Chinese	350	46.9	29.3
Malay	239	32.0	36.6
Indian	157	21.1	34.1
Total	746	100.0	100.0

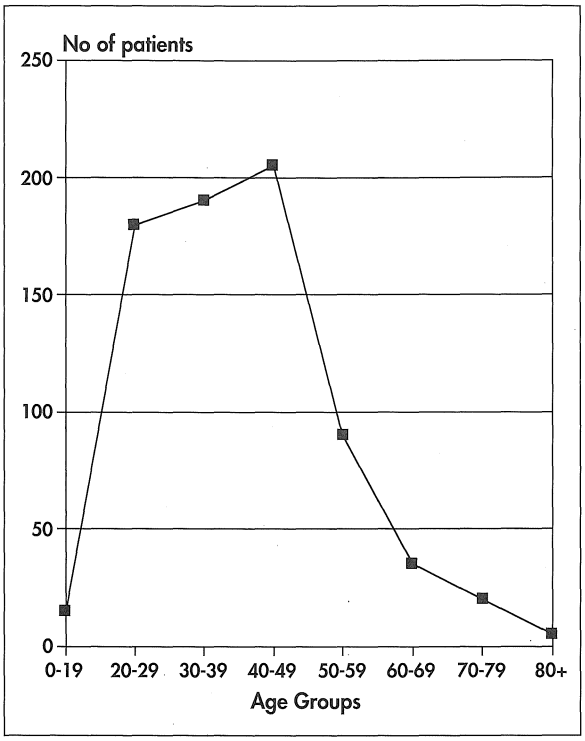

Fig. 1: Breast clinic – age of patients

B) Types of Breast Diseases

As seen in Table II, the majority of conditions seen were benign (79.6%). There were 152 cases of malignant breast disease seen (20.4%) out of which only 23 (3.1%) were new cases of breast cancer while the rest were follow-up cases. 49 patients (6.1%) were normal on examination, and just wanted a breast check-up. Out of the benign conditions, fibroadenoma was the commonest condition seen (25.5%). The diagnosis was easily confirmed by fine needle aspiration cytology, and if it was less than 3 cm the patients was reassured and asked to come for a 6 monthly follow-up. However if the fibroadenoma was large, surgery was recommended. Fibrocystic disease of the breast was the second commonest type of benign breast disease seen (24.7%). If a dominant lump could be felt, a fine needle aspiration cytology was done to exclude malignancy. Cysts were aspirated. If indicated, a mammogram was done as a baseline, and to exclude any malignancy. If there was any clinical suspicion of malignancy, despite a benign cytology, excision biopsy was advised to confirm the histology. If there was no

Table II
Types of cases

Type of Breast Disease	No	Percentage
Benign		
Fibroadenoma	190	
Fibrocystic disease	184	
Mastalgia	73	
Infection	24	
Mammographic abnormality	16	
Normal	49	
Others (eg. duct ectasia, duct papilloma etc.)	57	
Total	594	79.6%
Malignant		
Breast cancer (new cases)	23	
Breast cancer (follow-up)	123	
Breast cancer (recurrences)	6	
Total	152	20.4%

clinical suspicion, the patient was given a 3 to 6 monthly follow-up. Mastalgia was another common complaint (9.8%). Usually all that was required was reassurance. Other benign conditions seen were infective lesions, galactocoeles, duct ectasias, duct papillomas, and phylloides tumours.

C) Cytology

Aspiration cytology in skilled hands is generally accepted to be a useful and accurate method of diagnosis of breast diseases. It is quick, cheap, usually painless and can be carried out as an out-patient procedure.

216 aspirates were done during the 4-month period. Out of these, 22 aspirates were inadequate and excluded from the study, leaving 194 aspirates for analysis. There were 22 malignancies (11.3%), 11 suspicious of malignancy, (5.7%) and 161 benign, (83.0%). (Table III). 51 patients (26.3%) had histological diagnosis confirmed by operation. Of the 22 malignancies reported by cytology, 17 were confirmed on histology. Six of the malignant cytologies were recurrences out of which only one was histologically confirmed while the rest were not operated on as they had been treated with chemotherapy. Out of the 11 suspicious cytology, 4 were found to be benign and the other 7 confirmed malignant. Twenty-three out of the 161 benign cytologies (14.3%) were operated on. All 23 cases were found to be benign. There were hence no false positives or false negatives. The sensitivity which is defined mathematically by the following formula: (total positives/total positives + false negatives) x 100, is hence 100%. Out of the 29 malignant cases, 23 were new cases, while 6 were recurrences.

Table III
Fine needle aspiration cytology

Result	No	Operated-malignant	Operated-benign
1. Malignant	22	17	0
2. Suspicious	11	7	4
3. Benign	161	0	23
Total	194	24	27

No. of cases confirmed by histology: 51 (26.3%)

Discussion

Chinese women were the main race seen in the Breast Clinic compared with the other two main races. This was statistically significant ($p<0.05$) when compared with the percentages of women from the three races attending the surgical outpatient clinics. This could be interpreted as the Chinese being more "breast aware" than the other races and perhaps not as shy about seeking medical advice about breast problems.

Premenopausal women (less than 50 years) formed a large percentage of the women seen (79.5%). This is because the majority of benign breast diseases like fibrocystic disease of the breast, fibroadenomas and mastalgia occur in the reproductive age group[1].

The majority of cases seen were benign breast disease (79.6%). This is a common finding in most breast clinics[2,3] because benign breast cancer. Of the 152 malignant breast diseases (20.4%), 23 new cases were3.1%. The low pick-up rate of breast cancer compared to a breast disease is ten times more

common than breast clinic in the United Kingdom, where the ratio of cancer to benign conditions is 1:10 was probably due to the referral pattern; in the Breast Clinic in the University Hospital, the majority of patients were not referred by general practitioners but were "self-referred". If they had been seen by a general practitioner, they may not have needed referral to a specialist clinic. six of the breast cancer patients on follow-up were found to have recurrent disease.

Fine needle aspiration biopsy is convenient and quick to do in the breast clinic, and is relatively painless[4]. The sensitivity was 100% in our series. The sensitivity of fine needle cytology of the breast range from 80 - 100% in most series[5]. The 100% sensitivity found in our study could be because the study covered only a 4-month period and some were recurrences. A longer study and a longer follow-up of the patients with benign breast disease might give a lower sensitivity. The follow-up of patients in this study ranged from 2 months to 6 months. There was also an "indeterminate" group of "suspicious" cytology which was 5.7% of all the cytology reports, 4 out of which turned out to be benign. The frequency of this "suspicious" group has been reported to be 4-18%. All patients with a "suspicious" cytology were subjected to a trucut needle biopsy, or if unsuccessful to frozen section or excision biopsy. Out of the 27 benign histologies, 3 (11.1%) were suspicious on cytology.

Another reason for our zero false negative rate, which in other studies has been reported to range from 0.7 to 22%[6] could be because only 23 out of the 161 benign cytologies (14.3%) had breast biopsies done for histological confirmation.

Fine needle aspiration biopsy has been shown to decrease the number of unnecessary breast biopsies[7], and if the patient has a definite benign cytology report, she can be listed on the routine operating waiting list. All patients with breast cancer, or a "suspicious" cytology were given priority on the operating list, usually within 2 weeks of diagnosis. If a definite diagnosis can be made on cytology, adequate advice and counselling can be given to the patient prior to definitive surgery.

Conclusion

A 4-month survey of the breast clinic in the University Hospital showed that Chinese women were more "breast aware" than the Malay or Indian women. The majority of cases were benign breast disease, and the majority of patients were in the reproductive age group. The pick-up rate of breast cancer was 3.1%. In this survey, fine needle aspiration cytology proved to be a sensitive and quick method of obtaining a diagnosis, and could decrease the number of unnecessary breast biopsies.

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