Abstract

Breast carcinoma is the commonest cause of cancer death among women world wide including Sri Lanka. Clinical and morphological features of breast carcinomas are not widely studied in our setting. In Sri Lanka post surgical therapeutic decisions for breast cancer are made based on clinical and morphological features only. Immune prognostic markers are not widely used. In this situation post surgical therapeutic decisions made and the therapeutic regimes used may not be accurate unless the risk for metastatic and recurrent disease could reliably be determined by clinical and morphological features.

The objectives of this study included identification of important clinical and morphological features and the status of immune prognostic markers of breast carcinomas in Sri Lanka. Thirdly Immune prognostic marker status of breast carcinoma was compared with the clinical and morphological features and the fine needle aspiration biopsy (FNA) results to look for any association. Fourthly the risk for recurrent and metastatic disease assessed by clinical and morphological features were compared with the risk assessed by immune prognostic markers.

Relevant clinical and morphological features of 126 breast carcinoma patients presenting to the 2nd investigator during years1998 - 2000 were collected. Tumour samples were assessed immunohistochemically for oestrogen receptors (ER) and over expression of Her2neu. Patients were categorized in to high and low risk groups for recurrent and metastatic disease considering both clinical and morphological features and the status of immune markers. Associations between clinical features, morphological features, FNA results and the immune markers were studied. The agreement between the levels of risk as assessed by clinical and morphological features and immune markers were determined. Standard statistical tests were used for these evaluations.

Mean age of breast carcinoma patients in the study was 54.8. The highest frequency of breast carcinoma was seen in the 41-50 year age group. A majority (61.3%) of patients were postmenopausal. Breast carcinoma occurring in a familial setting was rare. At clinical examination mean size of the tumour was 4.16cm, however by gross examination mean size was smaller (2.95cm). Most tumours measured between 2.1-5cm.

Ipsilateral axillary lymph nodes were clinically palpable in 43% of patients. 44.4% had axillary lymph node metastasis. FNA test was a useful test to diagnose malignancy in our setting (in 83.3% patients) before definite surgical intervention.

Invasive duct carcinoma was the commonest histological type (82.5%). Majority of breast carcinomas were moderately differentiated (43.3%).

46% of breast carcinomas expressed oestrogen receptor positivity with 31.7% showing moderate / strong positivity. 48.4% tumours over expressed Her2neu, out of which 38.1% showed moderate and strong over expression.

Out of all clinical and morphological features and the FNA test studied, significant relationships were demonstrated only between the following.

A Positive ER status was associated with clinically palpable lymph nodes. A positive Her2neu status was associated with a positive FNA result and a higher mitotic count.

Therefore it is apparent that ER and Her2neu status cannot be assessed by considering most of the common clinical and morphological features of breast carcinoma.

The level of agreement between the risks for recurrent and metastatic diseases assessed by clinical and morphological features and the risk assessed by the immunohistochemical markers also indicate very poor levels of agreement.

There fore assessment of ER status and Her2neu status is recommended in every breast carcinoma specimen before planning out post surgical therapy enabling invidualized treatment based on risk for recurrent and metastatic disease.

Since 2+ positivity for Her2neu is currently considered equivocal, facilities to perform fluorescent in situ hybridization to detect Her2neu gene amplification is recommended whenever specific therapy with Trastuzumab is planned.