

## SOCIO-DEMOGRAPHICAL DATA, HISTOLOGICAL CHARACTERISTICS, TREATMENT VARIATION AND SURVIVAL ANALYSIS OF TRIPLE NEGATIVE BREAST CANCER IN NATIONAL CANCER INSTITUTE OF MAHARAGAMA, DURING YEAR 2009 AND 2010

Nawarathna, N. M. T. E. K.<sup>1</sup>, Perera, M.<sup>1</sup>

1. National Cancer institute, Maharagama, Sri Lanka

**Background:** Triple negative breast cancer (TNBC) which lack expression of both oestrogen (ER) and progesterone (PR) receptors and Her2, accounting for 15% -20% of all breast cancers. TNBC is different from other breast cancer sub types due to its molecular profile, aggressive behaviour, patterns of metastasis, and poor prognosis and also less treatment options compare to other sub types of breast cancer.

**Aim/s:** The main objectives, in this study were to assess 3 years and 5 years disease free survival and overall survival, epidemiologic factors, prognostic factors and treatment modalities in patients with TNBC treated in routine clinical practice in two units at National Cancer Institute, Maharagama, between January 2009 and December 2010

**Method:** In this retrospective study, Total of 752 patients were registered in clinics with the diagnosis of breast cancer during year 2009 and 2010. Out of that, 550 clinic records were traced and 89 of that were found to have triple negative disease. Four cases were not included to this study due to lack of data (89/550=16.18%). Socio-demographical data, histological characteristics and treatments data were collected. Kaplan-Meier method was performed to analyses the survival. Pearson Chi-Square test and Two Sample T- test were used to calculate differences. All p values are two tailed.

**Results:** In my study population, 52.51 years was the mean age (27-76) and majority was post-menopausal female (n=35, 57.6%). There was an early peak of recurrence in first three years of diagnosis. First relapse was predominantly observed in visceral organs, account for 64.8% (n=24) of total recurrences, Loco-regional metastasis was seen in 17.6% (n=6) and bone metastasis in 14.1% (n=5). Disease free survival (DFS) at 3 years of diagnosis was 62.3% (n=32) and at 5 years it was 47% (n=19). The 3-year overall survival (OS) was 58.8% (n=50) and 5-year OS was 47% (n=40). Out of prognostic factors, only tumour size was found to have a significant impact on recurrence rate. ( $X^2 = 99.9$  df=3,  $p < 0.05$ ). T4 tumours (Tumour involving skin or chest wall or both) had the lowest 5 years DFS (11.1%).

**Conclusion:** This study found that the majority of recurrences were reported during the first 3 years after the diagnosis of Triple negative breast cancer. It also found that 5-year survival of TNBC remains below 50% with current treatments. Thus, patients with triple negative breast cancer may need closer active surveillance in the first three years of the follow-up. Adding platinum based treatment and novel agents may improve the survival. Proper documentation of information and maintain good clinical records, especially risk factor will helpful in future retrospective studies. Also national data base will be beneficial in future studies done nationally.

Email of the Corresponding Author: [tirushanavarathna@gmail.com](mailto:tirushanavarathna@gmail.com)