

EFFECT OF AGE AND BODY MASS INDEX ON BREAST CANCER

P.B. Hewawithane¹, K. De Silva², U. Jayasekara^{3*}, A.L. Jayasinghe³

¹*Department of Radiology, Faculty of Medicine, University of Peradeniya, Sri Lanka,*

²*Teaching Hospital, Kandy, Sri Lanka*

³*Department of Radiography/Radiotherapy, Faculty of Allied Health Sciences,
University of Peradeniya, Sri Lanka*

**udenijayasekara@yahoo.com*

Breast cancer is the most frequently diagnosed cancer in the world. It has been the leading cause of cancer death among females. Furthermore, breast cancer is the second most common cancer among the causes of death. It is estimated that more than one million women are diagnosed with breast cancer every year and more than 410,000 die from the disease. The number of cases of breast cancer has significantly increased since 1970s as a result of adaptation to the modern life style. Breast cancer shows similar trend in Sri Lanka. There is no certain method to prevent from breast cancer. But, it is possible to change the life style such that the risk of getting breast cancer is lowered. Therefore, it is important to acquire the knowledge on risk factors for breast cancer. This study was designed to assess the association between the risk of getting breast cancer with the body mass index and the age, among proven breast cancer patients and asymptomatic women. The data from the records maintained by the principal investigator, at a private mammography facility in the Kandy district were used in this study with the consent of the patients and referring clinicians. This was a comparative study between the women who diagnosed as normal and the women diagnosed as having breast cancer on mammography and histology. Above subjects were selected from those who attended for mammography examinations from 2006 to 2013. Data were analyzed quantitatively and the inferences were made based on the statistical distributions. The breast cancer risk was considered as the dependent variable and age and BMI are considered as two numeric independent variables. From the sample of 338 patients 148 were diagnosed with breast cancer. The calculated mean and standard deviation of the BMI for diagnosed breast cancer patients were 25.7 kg/m² and 3.3, respectively while the same for asymptomatic women were 26.5 kg/m² and 4.8, respectively. The calculated mean age for the diagnosed breast cancer women and asymptomatic were 51.7 and 51.3 and standard deviations are 11.4 and 24.4, respectively. In this study p-values were 0.92 and 0.13 for age and BMI, respectively which were not statistically significant.