

RELATIONSHIP BETWEEN OCCURRENCE OF BREAST CANCER AND ANTHROPOMETRY IN WOMEN ATTENDING CANCER HOSPITAL MAHARAGAMA

K. S. Dayananda

Postgraduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka
Department of Biochemistry, Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka

Breast cancer is the most common form of malignancy found in women worldwide and the incidence in Sri Lanka too has increased in the recent past. Relative to the well-established risk factors, the relationships between human anthropometry and breast cancer occurrence has been an issue of concern in recent years.

This study was carried out to find the relationship between the occurrence of breast cancer with anthropometry of women in Sri Lanka. Ninety two of diagnosed breast cancer patients admitted to the cancer hospital Maharagama and ninety two healthy women, were recruited for the study. Weight, height, waist circumference, hip circumference and the thoracic circumference over nipples were measured. The body mass index and the waist to hip ratio was calculated. The data of each factor was categorized according to the respective International cut off values. The chi-square test and the independent samples t-test was conducted for all the categorized data of all the anthropometric factors.

Of the anthropometric measurements, higher waist to hip ratio was significantly associated with the occurrence of breast cancer (chi-square test, $P = 0.01$ and t-test, $P = 0.04$). The association of body mass index and the breast cancer occurrence was insignificant for all the cut off values. Further, no significant association was found for height, waist circumference and thoracic circumference over nipples with the breast cancer occurrence. Factors such as age, family history, use of oral contraceptives, duration of breast feeding of the first child and the menopausal state was found to be significantly associated with the occurrence of breast cancer. However the age at menarche, age at full term first pregnancy, occurrence of abortions and the exposure to the cigarette smoke was found insignificant with the occurrence of breast cancer in the study population.