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RISK FACTORS OF BREAST CANCER AMONG WOMEN REGISTERED FOR CARE AT APEKSHA HOSPITAL MAHARAGAMA: A MATCHED CASE-CONTROL STUDY

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Background: Breast cancer is a serious threat to society as it is the most frequently occurring cancer among females. Awareness about risk factors, especially modifiable risk factors is crucial to reduce prevalence of breast cancer among women.

Methods: An age-matched case-control study was conducted involving 77 breast cancer cases in oncology and surgical units of Apeksha Hospital Maharagama and 77 female controls who attended OPD of Teaching Hospital Kalutara. Convenience sampling technique was used to carry out the study and an interviewer-administered questionnaire was used for data collection. Modifiable risk factors and non-modifiable risk factors of breast cancer were assessed. Odds ratios with 95% confidence intervals were used to evaluate the risk associated with the factors. Data were analyzed using Standard Package for Social Sciences (IBM SPSS 25).

Results: The study revealed that hormonal contraceptive pill use, with an odds ratio of 2.31 (95% Confidence Interval [CI]: 1.19- 4.50) and overweight ($\geq 25\text{kg/m}^2$), with an odds ratio of 2.09 (95% CI: 1.09-4.03) exhibited a significant increased risk of breast cancer. Conversely, exposure to tobacco (OR: 1.84, 95% CI: 0.95-3.55), radiation exposure (OR: 1.61, 95% CI: 0.82-3.81) and breastfeeding 0.52 (95% CI: 0.21 - 1.37), Hormone replacement therapy (OR=0.74; 95% CI: 0.16-3.42) failed to show a significant risk of breast cancer. Among the non-modifiable risk factors, family history (OR: 4.81, 95% CI: 1.93-11.96) depicted a significant risk of breast cancer.

Conclusion: Modifiable risk factors of breast cancer included hormonal contraceptive pill use, and overweight ($\geq 25\text{kg/m}^2$), while, non-modifiable risk factors included family history. Promotion of healthy life styles and screening for breast cancer, especially who are on hormonal contraceptive pills need to be done.

Keywords: breast cancer, women, family history, hormonal factors