'BREAST CANCER EPIDEMIOLOGY: A CASE STUDY'

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ABSTRACT

This research studies the epidemiology & significant factors of breast cancer among Penang residents by identifying the correlation between the epidemiological factors with breast cancer incidences in Penang. Detailed data for this case study has been obtained from the Penang Cancer Registry Report (PCR) 1994-1998 and 1999-2003. There are four risk factors considered in this case study: age stage, districts, gender and ethnic. The Statistical Package for Social Sciences (SPSS) statistical software version 13 was used for these analyses. The data were rearranged; the breast cancer patients were summarized and statistically analyzed by Non-parametric Chi-Square method to ensure the reliability as a rearranged secondary data.

The profile of breast cancer incident is parallel with the PCR report and shows distribution with peak for pre- and post menopausal age i.e. at age stage 45-49 years old and above than 75 years old respectively. Women tends to get breast cancer compared to men, while Chinese ethnic and Timur Laut district of Penang has higher incident cases. This examination of the number of breast cancer incident cases and the age-stage for Penang residents from 1994 to 2003 revealed a positive or direct correlation between breast cancer and age. An analysis using Spearman's correlation coefficient supported this observation, $r(160) = .424$, $p < .001$. This study also revealed a positive or direct correlation between breast cancer and gender, $r(160) = .681$, $p < .001$; but a negative or indirect correlation with district and ethnicity.