

## Pattern of weight changes in women with breast cancer.

### Abstract

This study describes weight changes experienced by Malaysian women with breast cancer. Women with breast cancer (n=368) were recruited from eight hospitals and four breast cancer support groups in Peninsular Malaysia. Current weight was measured and weight at the time of diagnosis and a year preceding diagnosis were based on self-reports. Change in weight was determined from the year preceding breast cancer diagnosis to study entry (time 1), at the time of diagnosis to study entry (time 2) and from a year preceding breast cancer diagnosis to the time of diagnosis (time 3). Current body mass index, at a year preceding diagnosis and at the time of diagnosis were determined. Waist circumference was also measured. The sample comprised 57% Malay, 34% Chinese and 9.8% Indian women. The mean age of the women was  $54 \pm 9.04$  years and over 80% were post-menopausal. Majority of the women were in stage I and stage II breast cancer at the time of diagnosis. The most common treatments received by these women were chemotherapy followed by radiotherapy and mastectomy. Overweight and obesity were prevalent in over 40% of the survivors at all three periods. Significant weight changes were observed during time 1 ( $-0.74 \pm 4.78\text{kg}$ ,  $p < 0.001$ ), time 2 ( $2.73 \pm 8.06\text{kg}$ ,  $p < 0.001$ ) and time 3 ( $3.47 \pm 7.53\text{kg}$ ,  $p < 0.001$ ). At time 1, almost 50% showed no changes in their weight. At time 2, nearly two-thirds had gained weight and at time 3, 69% had gained weight, abdominal obesity was observed in nearly two-thirds of the women at study entry. A significant difference in weight change among age groups was observed in time 2 and time 3. All ethnic groups had significant weight change in time 1 and time 2. Significant weight gain was observed in relation to body mass index prior to diagnosis, at diagnosis and at study entry. However, no significant difference in weight change by educational level, family history of cancer and cancer stages were observed in all 3 periods. In conclusion, significant weight gain was evident in this sample of women after diagnosis of breast cancer and treatment. Women with breast cancer should be encouraged to maintain normal body mass index and waist circumference through appropriate diet and regular physical activity which may help to reduce their risk of recurrence, secondary cancer and metastasis.

**Keyword:** Weight change; Breast cancer; Malaysian women.