



Is obesity in childhood protective for breast cancer in young women?

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Islami *et al.* (1) reported the proportion and the type of cancers that are referable to excess of body weight (EBW) in United States. The study revealed 37,670 cancer cases in men and 74,690 cancer cases in women 30 years or older in US from 2011 to 2015 that could be ascribed to high body mass index. Interestingly, Islami *et al.* (1), found that the amount of population attributable fraction (PAF) for EBW was higher in women than in men, paralleling the close association between high body mass index (BMI) and increased risk for several female-specific cancers, such as breast cancer. Data on breast cancer are in line with the findings of the Women's Health Initiative Clinical Trial that reported an association of obesity with increased invasive breast cancer risk in postmenopausal women (2). However, in both of above mentioned studies the association between increased risk of breast cancer and EBW has been reported only for postmenopausal women, excluding from the analysis women younger than approximately 50 years. Postmenopausal women often exhibit high BMI, likely due to a decrease in basal metabolism, alteration of hormonal levels, and reduced physical activity with an increased risk of developing some types of cancer. Therefore, the promotion of healthy lifestyles through physical activity, education and food policies that point to reduce weight gain should be considered as preventive care in postmenopausal women.

On the other hand, previous studies have reported that high BMI in children appears to decrease breast cancer risk in both premenopausal and postmenopausal years (3,4). These lines of evidence suggest that both the timing and duration of excessive weight gain might be key factors that influence breast cancer risk in adulthood.

Therefore, the study by Islami *et al.* (1) could be well-implemented through future studies that retrieve weight history at different ages with the aim to establish how development of breast cancer is associated with the time-period of exposure to EBW.

Moreover, further prospective cohort studies should be performed in women who have suffered obesity in childhood because their results might provide important clues to the pathogenesis and effective personalized management for breast cancer in the obese population.

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