

# Impact of Breast Size and Body Mass Index on the Prevalence of Breast Cancer in the Sulaimaniyah Province of Iraqi Kurdistan

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## ABSTRACT

**Background:** In Iraq, there is no published data regarding the effects of breast size with high body mass index (BMI) on the prevalence of BC among Iraqi Kurdish women. Thus, this study aimed to determine the association between breast volume and BMI concerning the possibility of developing BC.

**Patients and Methods:** This cross-sectional study was conducted for 400 women diagnosed with BC at Hiwa Hematology/Oncology Hospital in Sulaimaniyah province from 14<sup>th</sup> February 2021 to 1<sup>st</sup> June 2022. Breast size with BMI was studied for women who visited the Clinic Department.

**Results:** The mean  $\pm$  SD age at early BC detection was  $47.33 \pm 9.9$  years. The majority (70.8%) of patients had a cup size D or larger, while only 12.8% had a cup size A or smaller. In addition, most patients (61.0%) had a  $\geq 90$  band size, and only 7.5% had a  $\leq 75$  band size. Therefore, large breast size was significantly correlated to the high incidence of BC. Regarding BMI, most participants were obese (62.5%) or overweight (28.5%). There was a significant relationship between high BMI and breast size with BC ( $P < 0.001$ ).

**Conclusion:** Large breast volume and high BMI are related to an increased prevalence of BC among Kurdish women.

**Keywords:** Breast cancer, breast size, body mass index, bra size, cross-sectional study.

**Practitioner summary:** Currently, there is no published data regarding the effects of breast size with high BMI on the prevalence of BC among Iraqi Kurdish women. Thus, we determined that large breast volume and high BMI are related to an increased prevalence of BC among Kurdish women at Hiwa Hematology/Oncology Hospital, Sulaimaniyah, Iraq.

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