

12th World Congress on Breast Cancer Research & Therapies

May 23–24, 2022 | Webinar

Ines Barone, J Womens Health 2022, Volume 11

Obesity and endocrine resistance in breast cancer: Epidemiological evidence and proposed mechanisms

Ines Barone

University Of Calabria, Italy

The incidence of obesity has been steadily increasing over the past few decades worldwide. This scenario has drawn particular attention from researchers due to the fact that obesity is associated with concomitant or increased risk of nearly every chronic condition, including diabetes, coronary artery disease, hypertension, kidney disease, disability, and carcinomas. In the latter regard, there is a growing appreciation that the excessive adiposity deeply influences risk, prognosis, and mortality rates of breast carcinomas. Obesity status has also profound implications on therapeutic management of patients, especially related to the efficacy of standard endocrine therapies with selective estrogen receptor modulators (SERMs) or degraders (SERDs) and aromatase inhibitors (AIs). The mechanisms underlying the link existing between obesity and endocrine therapy resistance are likely to be multifactorial. Indeed, different obesity-related host factors, such as adipokines, insulin-like growth factors pathways, inflammatory cytokines, aromatase activity, lipid metabolites, hypoxia and oxidative stress, can interact with several cancer cell-intrinsic signalings, rendering breast cancer cells resistant to endocrine treatments. Here, we will highlight the complex and not yet completely understood impact of obesity on breast cancer endocrine resistance, by providing an update of the recent epidemiological research focused on this hot topic and addressing the molecular mechanisms by which obesity-associated changes may affect breast malignancy.

Given the increase in global burden of obesity, especially in developing countries undergoing rapid socio-economic changes, a more comprehensive understanding of the mechanisms underlying the obesity-endocrine resistance connection will be instrumental to reveal novel markers and more personalized oncology approaches for disease management. In the meantime, lifestyle interventions (e.g. weight loss and exercise) need to be considered as strategies for prevention and survival improvement for breast cancer patients.

Biography

Ines Barone has completed his PhD at the age of 25 years from University of Calabria (Italy) and postdoctoral studies from Baylor College of Medicine, Houston, Texas (USA). Actually, she is Associate Professor at the Dept of Pharmacy, Health and Nutritional Sciences, at the University of Calabria. She was recipient of 3 Grants as a Principal Investigator and 3 Grants as a Member of Research Unit. She has published 87 papers in reputed journals and presented more than 80 abstracts at national and international meeting, including invited speakers. She has been serving as an editorial board member of repute and as a guest editor.

Received: February 24, 2022; **Accepted:** February 26, 2022; **Published:** May 25, 2022