

Obesity correlation with metastases development and response to first-line metastatic chemotherapy in breast cancer

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Abstract

To compare breast cancer metastases between obese and non-obese women and to evaluate the effect of first-line metastatic chemotherapy in each group

A retrospective study was performed in an educational institute in Ireland. The study consisted of two parts: the first part was a comparative analysis of metastases development in obese (arm A) and non-obese patients (arm B). The second part was a comparison between both arms in relation to their response to first-line metastatic chemotherapy and their survival data.

Between 2009 and 2014, we reviewed 118 patients with metastatic breast cancer. All the patients fulfilled our inclusion criteria. In all, 48% of patients were obese and 52% were non obese. There were no statistically significant differences between the two groups. For arms A and B, the median interval between initial cancer diagnosis and distant metastases development (distant metastases-free survival) was 5.8 versus 7.6 years, respectively (P value 0.04). Earlier visceral (liver and lung) metastases were observed in obese compared to non-obese women (P values were 0.05 and 0.04, respectively). The most commonly used chemotherapy was weekly paclitaxel. Our treatments showed significantly better treatment response and better survival results in non-obese women than in obese ones, who were premenopausal with performance state 2, pathological grade 3, and four or more positive lymph nodes.

Obesity is linked with visceral metastases development, especially lung and liver metastases. Furthermore, first-line metastatic chemotherapy achieved better results in no obese patients.

Biography

Mohammad Osman graduated from Ain Shams University Egypt in 1997. Following internship, he did 5 years residency training in Medicine and Oncology till 2003. Then he worked as a registrar in Oncology for 4 years before he got doctoral degree in oncology from Ain Shams University in 2009 as well as Membership of the royal college of physicians in Ireland in the same year. Following that he joined National Guard hospital in Saudi Arabia as Assistant consultant before he returned to Egypt to work as lecturer (consultant) oncology in general organization of teaching hospitals since 2012. Since then he published 9 manuscripts in Oncology. His interest is in gynecological malignancies.

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