

## Lack of correlation between Tc-99m-sestaMIBI uptake and cadherin expression in infiltrating ductal breast carcinoma as prognostic indicators

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Despite using various kinds of prognostic indicators, it is still not possible to predict the biological behavior of breast cancer in all patients. Tc-99m-sestaMIBI (MIBI) uptake determined by breast scintigraphy and cadherin expression of tumor tissue revealed by immunohistochemistry are suggested as potential agents for this purpose. We hypothesize that there can be a correlation between MIBI whose cellular mitochondrial content is claimed to play a significant role in its tumor uptake and cadherin whose downregulation causes an increase in mitochondrial activity in human mammary carcinoma cell lines. The aim of this study was to assess the relationship between the degree of MIBI tumor uptake and cadherin expression in infiltrating ductal breast carcinoma. Correlation with response to chemotherapy and some known prognostic factors of breast cancer such as tumor size, number of metastatic axillary lymph nodes and microscopic grading was also done. Fourteen patients who underwent scintimammography and subsequent surgical excisional biopsy that revealed infiltrating ductal carcinoma were enrolled in this study. Statistical analysis did not show any correlation between MIBI uptake and cadherin expression ( $p > 0.05$ ). Also, no statistically significant correlation was noted between MIBI uptake and tumor size, number of metastatic lymph nodes, microscopic grade, stage of the disease or response to chemotherapy. Similarly, there was no statistically significant correlation between cadherin expression and tumor size, number of metastatic lymph nodes, microscopic grade, stage of the disease or chemotherapy response. The results of this study imply that there is no correlation between MIBI tumor uptake and cadherin expression with neither of them good enough to be used as prognostic indicators for breast cancer.

**Key words:** breast cancer, prognosis, technetium-99m-MIBI, scintimammography, cadherin