

## **Evaluation and comparison of local recurrence and metastasis after MRM and BCS in breast cancer surgery**

### **Abstract**

**Background:** Today, with the advent of chemotherapy and radiotherapy and the desire of patients, surgical treatments with less invasiveness and breast preservation have been proposed as an alternative to complete breast removal. However, this concern has been raised for patients and physicians that limited surgery and breast preservation are likely to be associated with side effects such as increased likelihood of regional recurrence and metastasis.

**Aim:** To evaluate the local recurrence and metastasis after MRM and BCS in breast cancer surgery.

**Materials and methods:** In this retrospective study, 196 patients referred to Ardabil Imam Khomeini Hospital who were diagnosed with breast cancer and underwent BCS or MRM surgery were examined. Required information includes the patient's age, type of surgery, tumor size, type of tumor pathology, vascular and nerve invasion, estrogen and progesterone hormone receptor status, and HER2 gene and KI-67 antigen status which was extracted from patients' records.

**Results:** The mean age of the patients was  $48.1 \pm 12.4$  years. The type of surgery was MRM in 54 patients (27.6%) and BCS in 93 patients (47.4%). The frequency of local recurrence was zero in both MRM and BCS groups. Based on the results of the logistic regression analysis, there was no significant difference between the two groups in terms of the risk of distant recurrence ( $P=0.296$ ).

**Conclusion:** The results showed that breast conserving surgery and modified radical mastectomy had no significant difference in terms of the risk of local and distant recurrence. Therefore, taking into account less postoperative complications and better cosmetic outcomes in BCS method, it seems that this method can be considered without concern for women with breast cancer.

**Keywords:** Breast conservation surgery, modified radical mastectomy, recurrence.