

## **Abstract**

Investigation of tumor involvement at distances of 10, 15 and 30 mm from the tumor site in patients with breast cancer admitted to Ardabil University of Medical Sciences hospitals.

**Background:** Additional surgery with resection of the involved tissue in breast cancer may not only cause cosmetic problems, but also increase complications and costs in patients and also delay the initiation of appropriate adjuvant therapy. The condition of the surgical margin is considered as one of the most important predictors of local recurrence and an important factor in deciding the treatment process.

**Objective:** To investigate tumor involvement at distances of 10, 20 and 30 mm from the tumor site in patients with breast cancer admitted to the hospitals of Ardabil University of Medical Sciences.

**Materials and methods:** In this study, breast cancer patients referred to Fatemi and Imam Khomeini Hospital affiliated to Ardabil University of Medical Sciences who underwent breast surgery (BCT-MRM) were included in the study. After receiving the code of ethics and obtaining consent from the patients to enter the study, the patients underwent general anesthesia according to the same protocol, and the surgery was performed by a specialist in thoracic and breast surgery. After the removal of the tumor during the operation with a sterile ruler, a biopsy sample was taken from the distance of 10, 20, and 30 mm from the healthy margin of the tumor and sent to the pathologist for tumor involvement in the said distances with the

standard method. The clinical characteristics of the disease and histopathology related to tumor location, tumor size, presence of metastasis and histological examinations were collected and statistically analyzed.

**Results:** The results showed that the margin of the tumor was not affected at a distance of 30 mm from the tumor site. At a distance of 20 mm in (1.5%) 1 patient, at a distance of 10 mm in (3%) 2 patients, the tumor margin was positive.

**conclusion:** It seems that surgical resection with a margin of 2 cm is appropriate during surgery.

**Key words:** tumor margin, malignant breast mass