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**Original article:**

**Expression of B-cell lymphoma-2, Vimentin and CD44V6 in normal tissue around breast ductal carcinoma in sample of Iraqi women**

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**Abstract:**

**Background:** Breast cancer is the most common neoplasm among women in Iraq and in developed countries. The aim of this study was tostudy the immunohistochemical reaction pattern of epithelial, myoepithelial cells in normal tissue around breast carcinoma in addition to determine the sensitivity, specificity and validity of predetermined cut-off score of Bcl2, vimentin, CD44v6 markers and to determine the prognostics significances of these markers in future conservative breast surgery.

**Materials and Methods:** A total of 52 samples from breast tissue were included in this study. There were 12 histological samples of normal breast tissue as a control group and 40 samples contain (28) samples of normal tissue around infiltrative ductal carcinoma and (12) samples of normal tissue around ductal carcinoma in situ. For each case, 4 sections of 4 µm thickness were taken; one representative section was stained with H&E stain and otherthree sections stained immunohistochemically for each marker.

**Results:** there was significant increase in Bcl2 staining in normal tissue around DIS compared to control group and infiltrative DCA (*P* = 0.001and 0.004 respectively). Also there was significant increase in Vimentin staining in normal tissue around DCIS (91.7%) compared to control group(*p* = 0.000), together with normal tissue around infiltrative DCA (82.1%) of the cases compared to control group, CD44v6 shows greater extent of staining in normal tissue around DIS compared to control group and infiltrative DCA (*p* 0.001, 0.044 respectively).

**Conclusion:** There was higher expression of Bcl2, Vimentin and CD44V6 in normal tissue around breast carcinoma in comparison to normal breast tissue.

**Keywords:** breast cancer, vimentin, CD44V6, BCl2, normal tissue around breast CA