

# Relationship Between GPIb Alpha Expression and Tumor Metastasis

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## Abstract

*Background* Breast cancer is one of the most common malignant tumors that seriously threaten women's health, and its distant metastasis is the main cause of death of clinical patients. Platelet membrane glycoprotein Ib alpha (GPIb $\alpha$ ) is a specific glycoprotein originally expressed in platelet membrane, which plays an important role in the process of platelet adhesion. However, recent evidence suggests that it has ectopic expression in tumor cells and is closely related to the invasion and growth of tumor cells. *Objective* To study the expression of GPIb $\alpha$  in breast cancer and its relationship with metastasis. *Methods* Immunohistochemistry was used to detect the expression of GPIb $\alpha$  in breast cancer tissues, and the correlation between its expression level and clinical data of breast cancer patients (gender, age, tumor size and lymph node metastasis) was analyzed. *Results* Our results showed that the expression of GPIb $\alpha$  in breast cancer tissues was significantly higher than that in adjacent tissues and normal breast tissues, with a positive rate of 71% in 100 primary breast cancers. The protein expression level of GPIb $\alpha$  was positively correlated with the tumor size and lymph node metastasis ( $p < 0.05$ ). The larger the tumor, the higher the expression, and the more frequent lymph node metastasis, but there was no significant correlation with the sex and age of the patient ( $p > 0.05$ ). *Conclusion* We conclude that GPIb $\alpha$  protein is highly expressed in human breast cancer tissues, and it is positively correlated with the malignancy of breast cancer.

## Keywords

Breast Cancer, GPIb $\alpha$ , Metastasis

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