

**Title:** C-KIT IS RARELY EXPRESSED IN FIBROEPITHELIAL TUMORS OF THE BREAST.

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**Background:** CD 117 protein is a tyrosine-kinase receptor encoded by c-kit gene that frequently bears activating mutations in gastrointestinal tumors. Controversial results in CD117 expression in PT are reported in the literature.

**Design:** The CD 117 expression of 96 fibroepithelial tumors of the breast (26 fibroadenomas [FA] and 70 PT) were analysed by immunohistochemistry. Epithelial and stromal components were scored independently.

**Results:** 14 FA, 12 Juvenile FA and 70 PT were classified by usual criteria (stromal cellularity, atypia, epithelial hyperplasia, mitosis, borders) in 45 benign, 17 borderline and 8 malignant. CD117 expression was identified in stromal component in only 2 cases of borderline PT. Overall, 38 cases (39,6%) showed positive CD117 in the epithelial component, including 20 FA (10 regular, 10 juvenile) and 18 PT (11 benign and 8 borderline). Other cases, including all malignant PT, 6 fibroadenomas (4 regular, 2 juvenile), 34 benign and 10 borderline PT did not show positivity epithelial component. C-kit expression did not correlate to diagnosis or malignancy. ( $P > 0,05$ ).

**Conclusions:** C-kit expression is more often expressed by the epithelial component than in the stromal component, and it is detectable at the epithelia of benign lesions. C-kit expression is not related to malignancy or cellularity in fibroepithelial tumors of the breast.