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AN TYROSINE KINASE RECEPTOR AS PROMISING THERAPEUTIC TARGET FOR TRIPLE NEGATIVE BREAST CANCER

Joana D. R. Santos[1], Maria F. S. Cardoso[1], Carlos H. M. Castelletti[1], Nancy C. F. L. Ferreira[1,3], Darley L. F. Filho[3], José L. L. Filho[1,2], Danyelly B. G. Martins[1,2]

[1]Setor de Prospecção Molecular, Laboratório de Imunopatologia Keizo Asami, Universidade Federal de Pernambuco – Recife (PE), Brazil.
[2]Departamento de Bioquímica, Centro de Biociências, UFPE – Recife (PE), Brazil.
[3]Hospital Barão de Lucena – Recife (PE), Brazil.
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Objective: The aim of this study was to evaluate the expression of PDGFRA (platelet-derived growth factor receptor alpha) in 8 breast cancer tissue samples of which 2 TNBC (triple negative breast cancer), 3 luminal B and 3 luminal A. Clinical, and staging data were considered. **Methods:** The RNA was purified with the *RNeasy Mini Kit* (Qiagen), the cDNA was prepared by RT-PCR with the *QuantiTect Reverse Transcription* (Qiagen). The analysis was performed by qPCR (quantitative polymerase chain reaction) in the real-time PCR systems StepOnePlus™ (Applied Biosystems) with the GoTaq® qPCR Master Mix kit (Promega). ß-actin was used as the reference gene to normalize the expression of PDGFRA with specific primers. **Results:** In TNBC patients, show higher gene expression of PDGFRA 2.36 times more than luminal patients. In addition, the PDGFRA overexpression occur even after neoadjuvant chemotherapy. Is associated with. It has also been demonstrated that african ethnicity nd use of hormonal contraceptives may be related to the activation of PDGFRA. Both TNBC patients this study were recurrent in breast câncer. TNBC is an aggressive form of breast cancer that differs in epidemiology, risk factors, and prognosis from other types of breast cancer. The challenge in treating TNBC lies in the lack of targeted therapies currently available. Chemotherapy remains the only treatment option presently. Like many receptor tyrosine kinases (RTKs), PDGFRA is involved in the progression of a variety of cancers either by overexpression or by increased activity. **Conclusion:** These findings indicate that PDGFRA as a potential biomarker as well as a therapeutic target for TBNC.