

European Chemistry Congress

June 16-18, 2016 Rome, Italy

Title: Calcineurin levels and activity in breast cancer: Relation to apoptosis

Abeer A A Khamis³, Manal Basyouni Ahmed¹, Maha Imam Ahmed¹ and Muneera Al-Sheeha²

¹Ain Shams University, Egypt

²Qassim University, Saudi Arabia

³Tanta University, Egypt

Background: Calcineurin (CN) is a Ca²⁺/calmodulin- dependent phosphatase and has been implicated in both transcription-dependent and transcription-independent apoptosis. Objectives: We aim to interpret the correlation between calcineurin and apoptosis in relation to pathogenesis of breast cancer. Design and methods: Both calcineurin level and activity as well as caspase-3 activity were evaluated in tissue homogenate of 50 breast cancer patients, 20 patients with fibroadenoma and 15 healthy women. Results: Calcineurin activity was significantly low in malignant compared to benign and normal groups (P=0.00) without significant changes in its level (P> 0.05). While caspase-3 showed a significant higher activity in malignant group compared to other groups (P<0.05). Moreover, there was a significant negative correlation between calcineurin activity with grade, stage (P=0.01), caspase-3 (P=0.002) and a significant positive correlation with its level (P=0.039). Conclusion calcineurin activity but not its level has an important role in breast neoplasia, restoration of its normal activity may be act as adjuvant factor of apoptosis and control breast cancer pathogenesis.

Biography

Abeer Abdel Hamid Ahmed Khamis is from the department of Biochemistry from Tanta University, Egypt.

Lamarbasel2013@yahoo.com

Notes: