

Do the Mitochondrial DNA Polymorphisms Correlate With the Occurrence of Breast Cancer in Tunisia?

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Abstract

Objectives: This study seeks to determine whether there is any association between the polymorphism of mitochondrial HV2 region and the risk to develop breast cancer in Tunisia population.

Methods: We analyzed the polymorphism of HV2 mitochondrial region in 29 patients with breast cancer and 28 healthy blood donors by PCR-Sequencing.

Results: We revealed a negative significant association between the A>G mitochondrial polymorphism at position 263 and the incidence of breast cancer [13/29 (44.82%), in patients, versus 20/28 (71.42%), in control group] ($p=0.041$; OR=0.32).

Conclusion: The A>G mitochondrial polymorphism at position 263, present at germ line level, may be a protector factor for breast cancer.