Abstract

Objective. To assess whether in Mexican population the frequencies of ATM polymorphisms IVS24-9delT, IVS38-8T>C, and 5557G>A in breast cancer (BC) cases and healthy controls were different from those found in other countries. Materials and methods. Frequencies of polymorphisms conferring BC risk IVS24-9delT, IVS38-8T>C, and 5557G>A were analyzed by PCR-RFLP in 94 patients with familial and/or early onset BC, and 97 healthy controls randomly selected. Allele frequencies analysis was done using 2 and Hardy-Weinberg test. Results. Frequencies of heterozygous were: for 5557G>A, 13% cases, 0% controls (p=0.0009); for IVS24-9delT, 21% cases, 8% controls (p=0.0122); for IVS38-8T>C, only one case. 5557G>A and IVS24-9delT were more frequent in cases than in controls. The allelic frequencies found in 5557G>A are similar to those described by González-Hormazábal in Chile. Conclusion. The similarity of results in this polymorphism between Chilean and Mexican populations may be due to both being crossbred with an Amerindian-Spanish component, while differences may be due to fact that Chilean population has a greater European component than Mexican’s.

Keywords
Ataxia telangiectasia mutated (ATM), breast cancer, single nucleotide polymorphisms (SNP).