Screening of exon 11 for BRCA1 and BRCA2 using the high resolution melting in Moroccan breast cancer patients for diagnosis

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Introduction: Identification of specific mutation targets in cancer may lead to discovery of the genes modulating cancer susceptibility and/or prognosis. BRCA1 and BRCA2 is the most studied in association with Breast cancer. We evaluated the use of high-resolution melting (HRM) to screen for mutations in those genes in Moroccan patients and assess their clinical significance.

Material & Methods: The HRM analysis was used to screen coding exons from 71 breast cancer patients. All sequence variants detected by HRM resulted in abnormal shape of the melting curves. The identified mutations and known single nucleotide polymorphisms (SNP) were subsequently confirmed by sequencing and distribution of the SNP genotypes was determined by SNaPshot analysis.

Results: We identified specific missense mutations in different breast cancer Moroccan patients. For the exon 11 in BRCA1 gene, we first used two samples with previously known mutations, “2924delA and 3398delC” that yielded atypical shape in melting curves relative to wild-type control sequences and for two patients we observed an atypical curve which we sequenced using the conventional Sanger approach and we confirmed the presence of the same SNP (c.2612C>T) in both samples. Regarding the exon 11 of BRCA2 we detect for three samples an atypical curve which we sequenced after by Sanger Approach and we identified the presence of the same SNP c.6513G>C.

Conclusions: The HRM analysis represents a reliable and highly sensitive method for mutation scanning of multiple exons.

Mothers training needs about leukemia

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Introduction: Neoplastic disorders are the major reasons of children's diseases after the sucking period, and about half of the child's cancers are related to blood and other blood making organs. Documents showed that 4.2% of each 100,000 white child under 15 years old, and 2.4% of each 100,000 black child are involved with these diseases.

Aim: Concerning the high prevalence of leukemia and this matter that mothers are the major keeper of children, training them about this case is necessary.

Materials & Methods: In order to determine the mothers training needs about leukemia it was tested on 360 mothers in medicinal centers of Boroujerd and Shahrzea, in 2013. Testing was non random and continuous. Gathering information tool was questionnaire, and its method was interview. Information was analysis by SPSS16 software.

Findings: The results showed that information of 98.4% of examined mothers about major symptoms of leukemia was normal and just 15.8% had correct information about it. 36.7% of samples were not concerned correctly about recovering methods of children's in appetite and 59.2% were not aware of non medical methods of pain decreasing. 56.7% were not aware of preventing bleeding and 93.3% of examined mothers, were not concerned about controlling infection in these children.

Conclusions: In order to those mentioned above, it seems that mothers need a perfect training about leukemia. In this case, physicians, nurses, media, school books, and training pamphlets, have a special effect on removing this need, increasing health level, child's permanence and finally social health.