

عنوان مقاله:

The impact of omega-3 fatty acids in the regulation of gene expression and reduce the risk of breast cancer

محل انتشار:

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خلاصه مقاله:

Introduction: we have 2 group of fatty acid in our body, saturated fatty acids and unsaturated fatty acids, unsaturated fatty acids themselves divided to omega-6 fatty acids and omega-3 groups. Omega 3 fatty acids have numerous effects such as inflammation, Antiarrhythmic, lowering blood fat and are vasodilation. Materials and method: because omega 3 incorporate with some other factors effects on metabolism of carbohydrates and lipids, so can play important role in reduce development of breast cancer in some pathway, in this review we focus on some pathway. Result: The density of breast tissue, is a biomarker for the risk of developing breast cancer. IGF-I is one of the factors that relate to a significant concentration of mammary gland density, and omega-3 can reduced expression of this factor. On the other hand, omega-3 is rich of LDL and transfer eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) to the cell and activate PPAR γ , so effect on expression of heparan sulfate proteoglycans –Syndecan-1 molecules and finally induced apoptosis. Conclusion: Considering the role of omega-3 in reduce of inflammation and cell proliferation and induce apoptosis, today importance of diet with omega-3 and the balance between omega-3 and omega 6 to prevent the development of all type of cancers including breast cancer were discussed

کلمات کلیدی:

breast cancer, omega 3 fatty acids, PPAR γ , gene expression

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