عنوان مقاله:

Study Of Anti-Cancer Effects Of Quercetin In Dff45 Down-Regulated Mcf-7 Breast Cancer Clells: A Model For Atg5 Independent Autophagic Cell Death

محل انتشار:

یازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:

Introduction: Quercetin is a member of flavnoids having antioxidant and apoptotic effects. siRNA technology is a potent method for gene therapy of cancers via down-regulation of some specific genes. Knocking down of dff45 gene could sensitize the cancer cells for apoptosis. Autophagy is another cellular pathway propelling the cells toward cell death in some types of stress conditions. Methods: At first, four groups of mcf-7 cells were seeded in a multiple well plate and two groups of them were transfected with dff45-siRNA. One of the siRNAtransfected groups, as well as one non-transfected group, were treated with Quercetin (QCT) 24h after transfection. MTT assay was carried out for all of the cellular groups after 48h, to determine cytotoxic effects of QCT, siRNA and QCT+siRNA. Real time RT-PCR was utilized for ascertaining the expression levels of p53, atg5, lc3, beclin, dram and dapk as the key regulatory genes controlling autophagy. Results: We could down-regulate dff45 gene for about 70 percent. In the presence of QCT, the expression levels of lc3, beclin, dram and dapk were increased beside the constant levels of atg5 and p53. The existence of siRNA indicated similar results except decreasing of atg5 level. Conclusion: It was found that QCT induces autophagic cell death via the common ATG5- dependent pathway. The presence of siRNA changes the .mechanism toATG5- independent autophagy

کلمات کلیدی:

quercetin,siRNAtherapy