

Abstract

The Effect of Herbal Medicine on Neuroblastoma Cell Line in Culture [†]

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Abstract: Nowadays, interest in studies of traditional medicine in the world has gradually increased due to its potential to complement modern medicine, there are many phoytotherapeutic plants that are used for the herbal medicine. Neuroblastoma (NB), is an embryonal tumor of the sympathetic nervous system, accounts for 15% of pediatric cancer deaths. In this study, we investigated to effect of several plants such as *Viscum album*, *Inula viscosa*, *Hypericum perforatum*, *Lysimachia nummularia*, *Pinus pinaster* and *Rubus caeius*, Oleocanthol, is popular for the antioxidant, anticancer, antimicrobial features on the mouse neuroblastoma cell line Na2B. The effects of plants on the Na2B cell lines and mesenchymal stem cell. Viability of the cells were investigated via MTT assay for IC50 level. eNOS and VEGF immunohistochemical staining were done to show the oxidative stress and angiogenesis respectively. Also TUNNEL assay were done for the apoptosis. The best results were taken from the *Inulo viscosa* and *Rubus caeius*. These plants showed the greater eNOS expression and the lower VEGF expression and TUNNEL staining. Moreover these plants were not toxic for the mesenchymal stem cell. Our results showed that the effect of especially *Inulo viscosa* and *Rubus caeius* have potential effect for cancer treatment.

Keywords: Na2B; phytotherapy; apoptosis; eNOS; VEGF

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