

Abstract

The Effect of Herbal Medicine on Prostate Cancer Cells in Culture †

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Abstract: Herbal medicine has been used historically for anticancer effect and potent antiproliferative effects on different cancer cell lines. Prostate cancer has become the most common malignancy and the second highest cause of cancer death Western world. The antioxidant, antidepressant and antimicrobial effect of *Viscum album*, *Inula viscosa*, *Hypericum perforatum*, *Lysimachia nummularia*, *Oleocanthal*, *Pinus pinaster* and *Rubus caeisis* on cancer cell lines. In this study, we investigated whether these seven plants show any anticancer properties on prostatic cancer cell line. Du145 cancer cells and human adipose tissue derived mesenchymal stem cell were assessed for seven medical plants in culture with different doses. Firstly, the cytotoxicity rate (IC50) determined by MTT and then immunocytochemical procedure were done for oxidative stress (eNOS), angiogenesis (VEGF) and TUNEL method for apoptosis. The stainings were evaluated by H-score. According to the results, *Inula viscosa* and *Rubus caeisis* have a higher improvement effect than the other medicinal plants. And these plants were not toxic for adipose tissue derived mesenchymal stem cells. These plants caused the inhibition of cell proliferation and apoptosis in prostatic cancer cells. Our results indicated that these plants may be potential agents in prostatic cancer treatment.

Keywords: Du 145; Herbal Medicine; Tunnel



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