

عنوان مقاله:

The Effect of Echinops Lasiolapis Extracts, Native Plant of Yazd Province, on Peripheral Blood Mononuclear Cell Proliferation and IFN- γ Secretion

محل انتشار:

مجله بین المللی آزمایشگاه پزشکی، دوره 1، شماره 1 (سال: 1393)

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خلاصه مقاله:

Background and Aims: The present study was performed to investigate the effect of Echinops lasiolapis extract on peripheral blood mononuclear cells (PBMCs) proliferation and interferon (IFN)- γ secretion. **Materials and Methods:** PBMCs were obtained from three healthy volunteers and cultured in presence of Echinops lasiolapis methanol extract in different concentrations of 0.1, 1, 10, 100 and 200 $\mu\text{g/ml}$. Lipopolysaccharide (LPS) and Phytohaemagglutinin (PHA) were considered as mitogen. BrdU cell proliferation assay was used to determine cell proliferation. The concentration of IFN- γ in the PBMCs supernatant was determined using enzyme-linked immunosorbent assay. **Results:** Most concentrations of Echinops lasiolapis methanol extract showed inhibitory effect on PBMCs proliferation. There were significant differences between the concentrations of 200, 1 and 0.1 $\mu\text{g/ml}$ ($p < 0.05$). The optimum proliferation (30.66 \pm 24.67%) was obtained at concentration 1 $\mu\text{g/ml}$. The PBMCs supernatant IFN- γ concentrations in extract treated group without PHA and LPS and in PHA activated group were not significantly different. **Conclusions:** Our findings indicated that Echinops lasiolapis extract has immunomodulating activity which may be potentially to used as an immunotherapy agent.

کلمات کلیدی:

Cell proliferation, Echinops lasiolapis, IFN- γ , Phytohaemagglutinin, تکثیر سلولی, شکر

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