

## The anticancer effects of dandelion extract on cervical cancer cells compared with normal embryonic kidney cells

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### Background

Although several studies have been carried to investigate the effects of dandelion extracts on the viability of cervical cancer cells, the results on the effects of dandelion on cell viability, particularly in cervical cancer cells, are still challenging. The aim of this study was to investigate the cytotoxic effects of dandelion (*Taraxacum officinale*) extract on cervical cancer cells compared to non-cancerous cells.

### Methods

In this laboratory experimental study, HeLa cancer cell line and non-cancerous embryonic kidney cells (Hek293) were purchased from Pasteur Institute, Tehran, Iran. Cells were divided into control and treatment groups. In the treatment group, cells were exposed to 0.002, 0.02, 0.2, and 2 mg/ml of dandelion flower extract. MTT assay was used to evaluate cell viability. Data were analyzed using one-way analysis of variance.

### Results

HeLa cancer cells viability was significantly reduced in the groups exposed to 0.2 and 2 mg/ml of extract compared to the control group ( $p < 0.01$  and  $P < 0.001$ , respectively). None of the concentrations used had a significant effect on the viability of Hek293 cells.

### Conclusion

Dandelion flower extract in appropriate concentrations can reduce the viability of cervical cancer cells without side effects on healthy non-cancerous cells. The findings of this study support previous research indicating the anticancer effects of dandelion on cancer cells.