EFFECTS OF URSOLIC ACID ON HUMAN UVEAL MELANOMA CELLS

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Purpose：Recently, it has been reported that ursolic acid restrcits the spread and induces apoptosis of various malignant tumor cells. However, there were no reports about the effects of ursolic acid on uveal melanomas.

Method：The present study used the microculture tetrazolium test (MTT test) to examine the effects of ursolic acid on two human immortal uveal melanoma cell lines (M17 and SP6.5). Human dermal fibroblasts were tested as controls.

Result：Our study revealed ursolic acid had potent cytotoxic effects on uveal melanoma cells. The IC50 value was 14.6 ± 2.9 μM and 15.1 ± 2.2 μM in M17 and SP6.5 cell lines, respectively. The IC50 value of human normal fibroblasts was 243 μM. DNA fragmentation test showed ursolic acid at 30 μM could induce apoptosis of uveal melanoma cells but not of normal skin fibroblasts.

Conclusion：The present study showed ursolic acid has a selective cytotoxic effect on human uveal melanoma cells in vitro. Therefore, ursolic acid might be a promising new agent for treating uveal melanoma and is worthy of further research.

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