Regular Article Received: August 5, 2012 Revised version: November 16, 2012 Accepted: November 17, 2012

Baicalein Inhibits Growth of Cervical Carcinoma Via Inducing Apoptosis of Tumor Cells *In Vivo*

Wenzong LU*, Guangfeng JIA, Xiangyan MENG, Chen ZHAO & Yuan NI

Department of Biomedical Engineering, College of Electronic and Information Engineering, Xi'an Technological University, Xi'an, Shaanxi Province, 710021, China

SUMMARY. In the present study, the effects of baicalein were investigated on cervical cancer cell (U14)-bearing mice in vivo. By oral treatment with baicalein (30, 60 mg/kg body weight), the tumor growth inhibition percentage was 36.59 and 43.40 %, and the increment percentage of survival time was 49.46 and 51.75 %, respectively. Baicalein significantly induced apoptosis of tumor cells. Treatment with baicalein (30 mg/kg body weight) significantly decreased the expression of mutant p53 from 70.51 to 40.77 %, increased the expression of Bax from 21.12 to 31.61 %. Treatment with baicalein (60 mg/kg body weight) remarkably decreased the expression of mutant p53 to 44.13 from 70.51 %, increased p19ARF to 16.63 from 10.85 %, and Bax to 35.02 from 21.12 %, respectively. The present results demonstrated that baicalein present growth-inhibitory and apoptosis-inducing activities in cervical cancer cell (U14)-bearing mice in vivo

KEY WORDS: Apoptosis, Baicalein, Cancer.

ISSN 0326-2383 31

^{*} Author to whom correspondence should be addressed. *E-mail address*: wenzonglu@126.com. Present address: Xi'an Technological University, No.2 Xuefu Middle Road, Weiyang District, Xi'an City, Shaanxi Province 710021, China