



Influence of gossypol acetic acid on the growth of human adenoid cystic carcinoma ACC-M cells and the expression of DNA methyltransferase 1

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Genet. Mol. Res. 14 (4): 13456-13466 (2015)
Received June 8, 2015
Accepted September 25, 2015
Published October 28, 2015
DOI <http://dx.doi.org/10.4238/2015.October.28.6>

ABSTRACT. We investigated the effects of gossypol acetic acid (GAA) on the proliferation, apoptosis, and expression of DNA methyltransferase 1 (DNMT1) mRNA in human adenoid cystic carcinoma (ACC-M) cells *in vitro*. The proliferation and apoptosis of ACC-M cells after treatment with different concentrations of GAA were detected using Cell Counting Kit-8 and flow cytometry, respectively. DNMT1 mRNA expression was measured by real-time fluorescence quantitative polymerase chain reaction. The growth of ACC-M cells was inhibited after treatment with GAA for 24, 48, and 72 h. The apoptotic rates of ACC-M cells after treatment with GAA for 72 h were higher than those of control cells (without treatment) ($P < 0.05$). DNMT1 mRNA expression in ACC-M after treatment with GAA for 72 h was lower than that in control cells ($P < 0.05$). GAA had inhibitory effects on the proliferation and induced apoptosis of

human ACC-M cells, while GAA also reduced the expression level of DNMT1 mRNA in ACC-M cells.

Key words: Adenoid cystic carcinoma cells; Gossypol acetic acid; Methyltransferases