Câncer gástrico. O paenol (*Paeonia moutan*) inibe o câncer de estômago in vitro e in vivo

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**Paeonol inhibits tumor growth in gastric cancer in vitro and in vivo.**


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**Abstract**

**AIM:** To investigate the anti-tumor effects of paeonol in gastric cancer cell proliferation and apoptosis in vitro and in vivo.

**METHODS:** Murine gastric cancer cell line mouse forestomach carcinoma (MFC) or human gastric cancer cell line SGC-7901 was cultured in the presence or absence of paeonol. Cell proliferation was determined by 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay, and cell cycle and apoptosis by flow cytometry and TUNEL staining. Tumor growth after subcutaneous implantation of MFC cells in mice was monitored, and the effects of treatment with paeonol were determined.

**RESULTS:** In vitro, paeonol caused dose-dependent inhibition on cell proliferation and induced apoptosis. Cell cycle analysis revealed a decreased proportion of cells in G0/G1 phase, with arrest at S. Paeonol treatment in gastric cancer cell line MFC and SGC-790 cells significantly reduced the expression of Bcl-2 and increased the expression of Bax in a concentration-related manner. Administration of paeonol to MFC tumor-bearing mice significantly lowered the tumor growth and caused tumor regression.

**CONCLUSION:** Paeonol has significantly growth-inhibitory and apoptosis-inducing effects in gastric cancer cells both in vitro and in vivo.

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