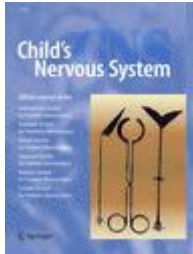


Tuesday, September 02, 2008

## Propolis Component Inhibits Growth of Tumor Cells



### Caffeic Acid Phenethyl Ester Preferentially Enhanced Radiosensitizing and Increased Oxidative Stress in Medulloblastoma Cell Line

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**Abstract:** Objectives Caffeic acid phenethyl ester (CAPE), an active component of propolis, was recently reported to have radiosensitizing effects on medulloblastoma (MB) cells. However, the mechanisms of radiosensitivity involved in medulloblastoma cells are still unclear. The specific aim of this study was to investigate the role of CAPE-induced oxidative stress to influence of radiosensitivity and anti-proliferative effects in medulloblastoma cells...

**Results:** The results indicated that CAPE inhibited the growth of Daoy cells. CAPE treatment in Daoy cells could effectively decrease glutathione reductase and significantly increase glutathione peroxidase. Radiation-activated NF- $\kappa$ B was reversed by CAPE pretreatment. Finally, the result of terminal deoxynucleotidyl transferase-mediated dUTP-biotin nick end labeling assay showed that CAPE treatment can enhance radiation-induced apoptosis in Daoy cells.

**Conclusions:** Our study demonstrated the anti-proliferative and radiosensitizing effects of CAPE on MB cells, which may be achievable through depleting GSH, increased ROS activity, and inhibiting NF- $\kappa$ B activity