Sanguinarine pode ser eficaz no osteosarcoma

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**Sanguinarine induces apoptosis of human osteosarcoma cells through the extrinsic and intrinsic pathways.**

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**Source**

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**Abstract**

The quaternary benzo[c]phenanthridine alkaloid sanguinarine inhibits the proliferation of cancerous cells from different origins, including lung, breast, pancreatic and colon, but nothing is known of its effects on osteosarcoma, a primary malignant bone tumour. We have found that sanguinarine alters the morphology and reduces the viability of MG-63 and SaOS-2 human osteosarcoma cell lines in concentration- and time-dependent manner. Incubation with 1 micromol/L sanguinarine for 4 and 24h killed more efficiently MG-63 cells than SaOS-2 cells, while incubation with 5 micromol/L sanguinarine killed almost 100% of both cell populations within 24h. This treatment also changed the mitochondrial membrane potential in both MG-63 and SaOS-2 cells within 1h, caused chromatin condensation and the formation of apoptotic bodies. It activated multicaspases, and increased the activities of caspase-8 and caspase-9 in both MG-63 and SaOS-2 cells. These data highlight sanguinarine as a novel potential agent for bone cancer therapy.

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