Ácido betulínico pode ser útil no tratamento do câncer de cabeça e pescoço

**Betulinic acid: a new cytotoxic compound against malignant head and neck cancer cells.**

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**Source**

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**Abstract**

**BACKGROUND:**

A new compound, betulinic acid, has been found to be cytotoxic against a variety of tumor cells originating from the neural crest. Its efficacy against head and neck squamous cellular carcinoma cell lines has so far not been tested.

**METHODS:**

Cell numbers were assayed by automated counting; caspase activation and programmed cell death were determined using an antibody specific for an apoptosis-associated epitope in epithelial cells. The expression pattern of Bcl-2 family members was assessed by Western blotting.

**RESULTS:**

In two HNSCC cell lines betulinic acid induced apoptosis, which was characterized by a dose-dependent reduction in cell numbers, emergence of apoptotic cells, and an increase in caspase activity. Western blot analysis of the expression of various Bcl-2 family members in betulinic acid-treated cells showed, surprisingly, a suppression of the expression of the proapoptotic protein Bax but no changes in Mcl-1 or Bcl-2 expression.

**CONCLUSION:**
These data clearly demonstrate for the first time that betulinic acid has apoptotic activity against HNSCC cells.


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