In vitro studies on the selective cytotoxic effect of crocetin and quercetin.

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Abstract
Crocetin (5-20 microg/ml), quercetin (10-40 microg/ml), and cisplatin (60-180 microg/ml) used as a positive control drug, were tested against human rhabdomyosarcoma (RD) cells and African green monkey kidney (Vero) cells. The cell viability, morphological changes, and lactate dehydrogenase activity were assessed. RD cell growth was found to be inhibited dose dependently by the three tested compounds. Morphological observation by phase contrast microscopy revealed that both crocetin and quercetin caused intense damage only on the malignant (RD) cells, whereas mild toxic effect was seen with cisplatin also on normal (Vero) cells.

PMID: 10925010 [PubMed - indexed for MEDLINE]