

Câncer de ovário e bioflavonoides

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Inhibition of cell growth and VEGF expression in ovarian cancer cells by flavonoids

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Dietary flavonoids have been shown to be protective against various types of cancers. Here we studied the effects of 12 different flavonoids and other substances on cell proliferation and VEGF expression in human ovarian cancer cells, OVCAR-3. Cell growth was determined to pinpoint the best time for drug treatment. By LDH assay, no cytotoxicity was observed for OVCAR-3 cells with all 12 chemicals except mevinoлин. Six flavonoids, including apigenin, taxifolin, luteolin, quercetin, genistein, and kaempferol, were shown to inhibit the ovarian cancer cell growth in a dose-dependent manner. From both RT-qPCR and ELISA results, all flavonoids have shown varied degrees of inhibition in VEGF expression. Taxifolin and naringin showed the least inhibition effect. They both lack a double bond in the second ring structure that may be important in inhibiting VEGF expression. The rank order of VEGF protein secretion inhibitory potency was **genistein > kaempferol > apigenin > quercetin > tocopherol > luteolin > cisplatin > rutin > naringin > taxifolin.**

Genistein, quercetin, and luteolin have shown strong inhibition to cell proliferation and VEGF expression of human ovarian cancer cells, and they show promising in the prevention of ovarian cancers.

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