

Isolated Flavonoids against Mammary Tumour Cells LM2

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The purpose of the present study was to investigate antitumour and anti-inflammatory activities of flavonoids isolated from *Byrsonima crassa*, *Davilla elliptica* and *Mouriri pusa*. The antitumour activity was measured by the MTT assay in murine mammary tumour cells (LM2) and the IC₅₀ values of the flavonoids tested ranged from (31.5 ± 2.97) to (203.1 ± 5.9) µg/ml. The flavonoids **1** (myricetin-3-*O*- α -L-rhamnopyranoside) and **3** (quercetin-3-*O*-galactopyranoside) from *D. elliptica* were the most active ones against the tumour cells. The same samples were tested to determine the inhibition of the release of nitric oxide (NO) and of the tumour necrosis factor- α (TNF- α) in murine macrophages by the Griess and ELISA sandwich assay, respectively. Almost all the samples showed inhibitory activity to the release of NO but not of TNF- α . Of all substances tested, flavonoids **2** (quercetin) and **6** (myricetin) may show promising activity in the treatment of murine breast cancer by immunomodulatory and antiproliferative activities.

Key words: Flavonoids, Antitumour Activity, Cytokine