Cancer is a disease that affects thousands of people around the world and has been considered one of the most important public health problems worldwide. The treatment becomes complicated mainly due to metastasis. The metalloproteinases (MMPs), in particular MMP-2 and MMP-9, also called gelatinases are very important in invasion process metastatic of neoplastic cells, by degrade collagen type IV, present in the membrane basal. Thus, the inhibition of these may have relevant role in treatment and prevention of tumor proliferation. Using the zymography, there was obtained the inhibition of gelatinases, by extracts of leaves (16I), flowers (16II), stems (16III) and fruits (16IV) of a plant species of the genus Bauhinia. The extract that showed the greatest inhibition of gelatinase activity (16III) was directed to the liquid-liquid partition with solvents of increasing polarity, the inhibition potential of your partitions and the phytochemical profile were evaluated. After the partitions the zimogram 16III, the acetate fractions (16IIIID) and hydroalcoholic fractions (16IIIA) inhibited 98.77% and 99.59% of the activity of gelatinases, respectively, when compared to the control group. The phytochemical study revealed significant presence of flavonoids and alkaloids in both fractions studied, which suggests that these are the secondary compounds with inhibitory activity.

Keywords: Gelatinases, Zymogram, Phytochemical study.
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