

Antitumoral Effects of *Kalanchoe brasiliensis* Extract

Lages, P. M.¹, Oliveira, A. J.¹, Chaves, D.S.A.², Costa, S.S.², Koatz, V.L.G.^{1*}
Zingali, R. B.¹, Cavalcante, M.C.M.¹

¹ Instituto de Bioquímica Médica, ² Núcleo de Pesquisa de Produtos Naturais, UFRJ, Rio de Janeiro, Brazil. * Deceased

Kalanchoe brasiliensis Camb. (Kb) leaves, a Brazilian medicinal plant from the Crassulaceae family, is used in popular medicine to treat rheumatic and pulmonary diseases. We have previously showed that Kb extract has immunosuppressive and anti-inflammatory properties (Costa et al, J.Nat Prod, 2006, 69:815). The aim of this study was investigating the effects of Kb extract on the *in vivo* and *in vitro* assays using tumoral cells. Groups of C57Bl6 mice were submitted to two treatments. 1) Subcutaneous injection of B16.F10 or Ehrlich tumor cells in the left flank. 2) Intramuscular injection of Sarcoma 180 cells in the posterior region of the hind paw (5×10^6 cells/100 μ l RPMI). Two days after the injection, the animals were treated with an intraperitoneal dose of 480 mg/kg/day of Kb extract during ten days and then euthanized. The tumor sizes were measured with a paquimeter. Additionally, cell viability (MTT) of B16.F10, Sarcoma 180 and Ehrlich cells were evaluated *in vitro* in the presence of different concentrations of Kb extract resuspended in RPMI. The mice treated with daily injection of Kb extract have not developed the melanoma (B16.F10). However, we did not find a significant reduction of Sarcoma 180 and Ehrlich tumor growing on the treated mice. The treatment with Kb extract (50 mg/mL) of the B16.F10 cultures reduced cell viability. Here we demonstrated that intraperitoneal administration of Kb extract inhibits the B16.F10 tumor growing. The antitumoral activity exhibited by Kb extract is under current investigation with the aim of identifying the bioactive compounds.