

**P-105: EFFECT OF THE ASSOCIATION OF ALKALOIDS FROM PEPPERS AND 5-FU IN THE TREATMENT OF SARCOMA 180 (S180)**

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In cancer chemotherapy, drugs are often used in combination to increase the response rate. The aim of this study was to investigate the antitumor effect of the association of piplartine or piperine, alkaloids isolated from *Piper* species, with 5-fluorouracil (5-FU) in experimental model. S180 inoculated animals were treated i.p. daily with piplartine or piperine (50 mg/kg) alone or associated with 5-FU (10 mg/kg), for 7 days. In the following day, peripheral blood was used for hematological and biochemical analyses, and organs and tumor were weighed and submitted to histopathological analysis in order to evaluate the toxicological aspects. The combined treatment of piplartine, but not piperine, with 5-FU showed an increased antitumor activity ( $p < 0.05$ ). Piperine was more toxic to the liver than piplartine that in turn affected more the kidney, but both organs were only reversibly affected. Neither transaminase activity nor urea level was increased. In hematological analysis, it was observed leucopenia after 5-FU treatment, which was prevented by the association with piplartine, but not piperine. These findings suggested that piplartine, but not piperine, can augment antitumor and attenuates the toxicity of conventional antineoplastic agents.