

## The effectiveness study of the seed extract papaya (*Carica papaya* Linn) in gastroprotection of gastric ulcer induced in animals.

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**Introduction:** A gastric ulcer is a chronic disease that today still presents significant prevalence with etiology multifactorial aspects associated with the imbalances between aggressive and protective factors of the gastrointestinal tract. Some drugs and natural medicine are used therapeutically, and in this sense, there is the popular use of papaya seeds for the treatment of ulcers empirically without basis in scientific studies that have validated its action. **Objective:** To evaluate the effectiveness of the seeds extract of *formosa* papaya / ECP (*Carica papaya* Linn) to the prevention of gastric ulcers induced in male Wistar rats. **Methods:** To prepare the extracts, the seeds were dried in a circulating air oven at 40 ° C for five days. After drying, were ground in a knife mill. Then the samples were extracted by maceration with 95% methanol (PA) for 15 days and then filtered, evaporated and lyophilized to obtain a methanol extract. The antiulcerogenic action of ECP was evaluated using two experimental models: The model of induction by ethanol and indomethacin. Both experiments used fasting for 16 h and the treatments were administered orally (gavage). Induction with ethanol Model: The rats were divided into five groups (n = 7) receiving saline 5ml/kg, 30mg/kg lansoprazole, 125, 250 and 500mg/kg ECP, respectively. One hour after treatment all rats received 0.5 mL/100g body weight of 70% ethanol to induce gastric ulcer. An hour later, the animals were euthanized with ketamine and xylazine. Induction Model for Indomethacin: The rats were divided into five groups (n = 8) and received 0.5 ml / kg saline and 200 mg / kg of cimetidine, 125, 250 and 500 mg / kg ECP respectively. One hour after treatment all rats received indomethacin (100 mg / kg) dissolved in 0.5% sodium bicarbonate (po) to induce gastric ulcer. Twelve hours later, the animals were euthanized by overdose of ketamine and xylazine. The stomachs were removed and opened along the greater curvature. For lesion analysis the software was used specific "EARP" and statistical analysis used the Jandel Sigma-Stat (Systat Software, Inc, USA). **Results:** The results show that the treated groups in the model of ulcers induced significantly reduced the total lesion area, the rate of lesion and the percentage of lesion according to the negative control group (saline) (P <0.001). In the ethanol model, the doses of (ECP 250 and 500 mg / kg) and lansoprazole (30 mg / kg) have gastroprotective action, in percentage of inhibition of 78.87%, 89.32% and 79.89% respectively. In the model induced by indomethacin, the doses of ECP (125, 250 and 500 mg / kg) and cimetidine (200 mg / kg) have gastroprotective action of 73.84%, 72.11%, 76.11% and 65.40% respectively. **Conclusion:** From these results we can conclude that the ECP has gastroprotective activity at different doses compared to negative control (saline) in both models. However, studies are needed to complement the results obtained, such as induced ulcer model for evaluation of the healing capacity and evaluation of the toxicity of the plant and the identification of compounds responsible for this effect, as well as the mechanisms involved in gastroprotective action .

**Keywords:** *Carica papaya*, gastric ulcer, rats, gastroprotection.