

## **Comparative investigation into the anti-ulcer activity of virgin coconut oil and coconut oil in pylorous ligated animal model**

### **ABSTRACT**

This current study investigated the anti-ulcer activity of 2 types of virgin coconut oil (VCO-A and VCO-B) and coconut oil (CO). Sprague-Dawley of male rats divided into 6 groups and each group consisted of ten rats. Rats were then treated with either VCO or CO and then were then anaesthetized and pyloric ligation was performed. The anaesthesia was discontinued and the animal usually recovered consciousness within less than an hour. Three hours later, the animal was then again anaesthetized and sacrificed with chloroform. Stomach removed and its content subjected to measurement of volume and pH. The results revealed VCO-B and VCO-A (100%) significantly inhibited ( $p < 0.001$ ) the volume of gastric juice secreted by the control rats by 66.81% and 51.53%, respectively. Followed by CO 42.80%. While the inhibition of gastric juice for positive control rats which treated with ranitidine (100 mg/kg) was only 22.38%. The total acid output was reduced by the oils to 70.80%, 74.16% and 40.45% for VCO-A, VCO-B and CO respectively compared to control group. Ranitidine reduced the total acid output by 34.83%. In conclusion, prevention of gastric lesions in rats by VCO was found to increase the mucous and decrease the acid volume, total acid contents and ulcer scoring. The treatment of VCO affects the all parameters that influence the initiation and perpetuation of ulceration.

**Keyword:** Virgin coconut oil; Coconut oil; Ranitidine; Ulcer; Pyloric ligation; Mucous secretion