Wazir; a VCO based bioproduct developed for haemorrhoids

Mohd Razip Asaruddin1 & Muhammad Hamdi Mahmood2

1Faculty of Resource Science and Technology, University of Malaysia Sarawak
2Faculty of Medicine and Health Sciences, University of Malaysia Sarawak

Abstract

Haemorrhoids occur when blood vessels at the lowest anal region swell abnormally. There are various different ointments currently used to treat haemorrhoids such as herbal based products to ease of inflammation moisturize and lubricate the affected region. However, scientific evidence supporting the effectiveness for those herbal based product is still lacking. Virgin coconut oil (VCO) contains lauric acid and its derivative, monolaurin which displayed anti-microbial, anti-oxidant and anti-inflammatory properties. Furthermore, VCO contains natural humectant and property which expedite wound healing. In this present study, we described biotechnological approach in development of a product to treat haemorrhoids. The aim of this study was to compare our VCO haemorrhoids cream prototype (proposed trade named; Wazir) to other haemorrhoids creams. For methodology, Wistar albino rats (n=28), age 6-8 weeks old, weighing 160-180 g, were used in this study. Those animals were divided into four groups namely, negative control, croton oil (5%) induced positive control for haemorrhoids, control treated with hydrocortisone 1% (as used for clinical treatment) and induced animals treated with herbal preparation a prototype cream that contained the following leaves extracts; fig leaves (5%), artichoke (5%), walnut (5%) and horse chestnut fruit (5%). After 3 days of treatment with the prototype cream, those animals were sacrificed, histology & blood investigations namely, Myeloperoxidase, Malondyaldehyde, nitrate/nitrite and nitrotyrosine levels and Superoxide Dismutase activity were performed. For results, we observed, the treated group showed significant histological change towards haemorrhoids healing (one-way ANOVA & Tukey’s multiple comparison tests; p=0.000; p<0.01). In conclusion, the herbal preparation demonstrated a marked improvement for haemorrhoids. Therefore, this strongly suggests that our group had developed an effective potential treatment for haemorrhoids.

Keywords: Virgin coconut oil (VCO); haemorrhoids; herbal cream; bioproduct

*Author for Correspondence