

PP 049: Antioxidant Activity Of Linklive Care™: A hepatoprotective polyherbal formulation

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Link Livecare™ (LLC): a new hepatoprotective polyherbal formulation that consists of 14 herbs: *Andrographis paniculata*, *Eclipta alba*, *Phyllanthus amarus*, *P. emblica*, *Piper longum*, *Terminalia chebula*, *T. bellerica*, *Tinospora codifolia*, *Curcuma longa*, *Glycyrrhiza glabra*, *Boerhavia diffusa*, *Osbekia octandra*, *Tephrosia purpurea* and *Vernonia cinerea* was formulated by an expert panel of Ayurvedic physicians at Link Natural Product (Pvt) limited. The antioxidant capacity of LLC was evaluated via total phenol content (Folin–Ciocalteu method), 1,1-diphenyl-2-picrylhydrazyl (DPPH), 2,2-azinobis-ethylbenz-thiazoline-6-sulphonic acid (ABTS) and Nitric oxide (NO) scavenging activity. The gallic acid equivalent phenolic content of the LLC was 1050/7g. DPPH scavenging activity of the extract of LLC (10 -300 µg/ml) and gallic acid (2 -10 µg/ml) exhibited dose dependent activity with IC50 values of 50 µg/ ml and 5 µg/ ml, respectively. ABTS cation scavenging activity of trolox (0.125 - 2 µg/ml) and LLC (50- 1000 µg/ml) also showed dose dependent scavenging activity. Trolox the standard showed 97% scavenging activity at 1 µg/ml whereas LLC showed 55% scavenging activity at 1000 µg/ml. Quercetin (25 -400 µg/ ml) and the extract of LLC (50 -1000 µg/ ml) showed a dose dependent elevation in NO scavenging activity. Quercetin the positive control reached 58 % at 400 µg/ ml. At the same concentration the extract of LLC showed 50 % NO scavenging activity respectively. These results show that the antioxidant capacity of the extract of LLC is low compared to the standards, except in the NO scavenging activity assay. This indicates that anti-oxidant effects do not play an important role in the reported hepatoprotective activity of LLC.

Keywords: hepatoprotective formulation, total phenols, DPPH, ABTS, NO scavenging activity

PP 050: Edible gel from *Gracilaria salicornia* for health food application

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Seaweed has been utilized in traditional medicine for centuries. The objective is to develop food gels from *Gracilaria salicornia* as red seaweed is currently under-utilized in Sri Lanka. *Gracilaria salicornia* was collected from Valaipadu beach in the Northern Province. The proximate composition was determined by AOAC methods, while total carbohydrate was determined from the Dubois method. Agar gel was extracted by hot water extraction. Moreover, the antioxidant activities of dried seaweed powder were screened. The extracted agar yield, textural properties, and infra-red (FT-IR) spectrum were investigated and the results were compared with laboratory-grade agar. *Gracilaria salicornia* contained crude protein as $8.67 \pm 0.11\%$, crude lipids as $1.7367 \pm 0.12\%$ and considerably high amounts of ash as minerals $27.36 \pm 0.24\%$. The gel hardness of the gel solution (1.5%, w/v) was