



Acute Toxicity and Biochemistry Studies of Combined Aqueous Extracts of *Curcuma longa* and *Quercus infectoria*

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Curcuma longa L. (Zingiberaceae) (CL) (well-known as turmeric (English) and *kunyit* or *haldi* among Malaysians) and *Quercus infectoria* (QI) (known as *manjakani* (Malay) and *majuphal* (Indian) among Malaysians) are widely used in herbal preparation for post natal care to promote wellness after childbirth especially in wound healing and weight management. The aqueous extract of QI galls and CL rhizomes was demonstrated to have high hydrolysable tannin and curcumin, respectively. However, not many studies were done to look into the safety of these plants especially when used in combination. This study was carried out to determine the acute toxicity and biochemistry profiles of these combined aqueous plant extracts. According to OECD guideline, male and female (n = 6 for each sex in 3 groups) Mus Musculus mice were given 2 g/kg and 5 g/kg of the combined aqueous extract with ratio of CL: QI 2:1 orally and control were given normal saline. The body weight, food and water intake were recorded. The animals were observed for 14 days after the administration of the respective extract. After 14 days, the animals were sacrificed and the blood samples were collected for biochemistry analysis that include ALT, AST, albumin, calcium, cholesterol, glucose, total protein, triglycerides and urea. No death of mice was reported from day 1 until day 14. There were slight increased in body weights however not significant. Results demonstrated that combination of QI nut galls and CL rhizomes aqueous extract was not toxic. There were reduced level of albumin, cholesterol, glucose, total protein, and urea. However mixed biochemistry profiles between studied males and females in fed and control group were significantly due to gender differences. In conclusion, combination of QI and CL aqueous extract was considered as safe and may be potential adjunctive anti-obesity agent marketable for weight management.