Physiological Safety and Reproductive Evaluations on A Seven-day Consecutive Feeding of *Mondia whitei* L. (VUKA) Water Extract to Male Rats

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**ABSTRACT**

The objective of this study was to evaluate physiological safety and reproductive function for a 7-day consecutive feeding of VUKA freeze-dried water extract in Sprague Dawely (SD) male rats. The VUKA extract was administrated daily by gavage to each group at different doses of 0, 100, 500 and 1000 mg/kg BW for 7 days. Body and organ weights of different treatments had no significant difference (\(p>0.05\)) from control. Serum biochemical changes in liver such as aspartate aminotransferase (AST) and alanine aminotransferase (ALT) levels in treated rats showed significant decreases (\(p<0.05\)) as compared with the control. Besides, albumin/globulin ratio (A/G ratio), blood urea nitrogen (BUN) and creatinine were comparable to those of control. But, the levels of \(\gamma\)-glutamyltranspeptidase (GGT), alkaline phosphatase (ALP), lactate dehydrogenase (LDH), cholesterol, triglyceride, total protein (TP), albumin, uric acid, sodium, potassium, chloride and calcium in serum had no significant differences (\(p>0.05\)) with those of the control. There were no significant lesions of testis and epididymis founded at gross and histopathological observation in the treated rats. For reproductive function versus control, concentrations of spermatozoa in all treatments showed significant increases (\(p<0.05\)), while progesterone in serum in all treatments had significant decrease (\(p<0.05\)). The results showed that feeding of VUKA freeze-dried water extract in male rats for 7 days had no toxic effects and did not affect the reproductive function of male rats. Further study will be carried out to find the phenomenon of lower progesterone value in treatment.

**Key words:** *Mondia whitei* (VUKA), 7-day consecutive feeding, rats, sperm, hormone

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