**Effect of Phytocystatin from *Moringa oleifera* leaf on some biochemical parameters of Mice infected with *Plasmodium berghei* NK65**

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ABSTRACT

Current drugs used in the management of Malaria encounter parasite resistance, hence the need for urgent and readily available alternative source of antiplasmodial agents. The effect of crude phytocystatin extract of the seeds of *Moringa oleifera* leaf in mice experimentally infected with *Plasmodium berghei* NK 65 strain was investigated. The oral acute toxicity of the extract was determined in mice. Parasitaemia was estimated daily while Total protein, albumin, globulin, free fatty acid packed cell volume (PCV), were determined at days 5 and 10 post treatment. The results showed that the oral median lethal dose (LD50) was greater than 5000 mg extract/ Kg body weight. There was extension of life in the treated groups when compared to the negative control. The administration of the crude phytocystatin extract led to a highly significant (P<0.05) increase in Total protein, albumin, and packed cell volume levels while the globulin and free fatty acid levels decreased significantly (P<0.05). It is concluded that the crude phytocystatin extract of *Moringa oleifera* leaf has antiplasmodial activity and is effective in the management of anaemia induced by *Plasmodium berghei* in mice.

Keywords: Phytocystatin, *Moringa oleifera,* Biochemical parameters, *Plasmodium berghei* NK65