Toxicity paradigm of aqueous extract of abrus precatorius leaf in monogastric animals

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The knowledge about toxicity of *Abrus precatorius* seed is ubiquitous. However there is need to define the toxicity limit of *Abrus precatorius* leaf in monogastric animals. Therapeutic animal-human and human-animal equivalent doses were determined using human equivalent dose formular. Human Equivalent Dose (HED) is equal to animal dose multiplied by animal km factor divided by human Km factor. Whereas Km factor is body weight (kg) divided by body surface area (m²). Human Equivalent No-observable Adverse Effects Dose is equal to animal no-observable adverse effect level (NOAEL) multiplied by animal weight (Wa) divided by human weight (Wh) rest to the power of 0.33 was used to confirm 12.5mg/kg body weight of mice (relatively safe dose) translated to human and other animal’s safe doses. The LD₅₀ of aqueous leaf extract of *Abrus precatorius* in mice was estimated to be 2559.5 to 3123.3mg/kg body weight. Whereas the LD₅₀ extrapolated from mouse to rat (1349.3-1646.6mg/kg), hamster (1855.3-2264.1mg/kg), guinea pig (1279.5-1561.4mg/kg), rabbit (618.4-754.7mg/kg), monkey (593.7-724.5mg/kg), cat (392.7-479.2mg/kg), dog and baboon (371.1-452.8mg/kg), child (297-362mg/kg) and adult human (197.8-241.5mg/kg) body weight respectively could be a reality. The therapeutic safe dose range for the animals was 1-12.5mg/kg body weight for a period of 7 days, but at dose ≤ 200mg/kg bodyweight the leaf extract have haematonic effect. However, at higher dose > 200mg/kg, the extract showed haemolytic activity in rat, whereas at dose ≥ 25.0mg/kg. The leaf extract might be organotoxic to monogastric animals.