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Acute kidney injury following ingestion of Gloriosa superba: A review

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Objectives: Acute kidney injury (AKI) following ingestion of Colchicine tablets is described in literature. A plant poison called *Gloriosa superba* also contains the alkaloid Colchicine as main toxic compound and more common in South, Southeast Asia and Africa as a suicidal agent. The mode of poisonous action is mainly via its anti-mitotic activity. However, there are few case reports published on *Gloriosa superba* poisoning and kidney injury following ingestion of *Gloriosa superba* is less described. Through this review, we intended to gather information on kidney injury as a clinical manifestation following *Gloriosa superba poisoning*

Methods: We have reviewed intentional/non-intentional *Gloriosa suprba* poisoning case reports using following data sources: Pubmed, papers cited in publications retrieved and the worldwide web (using Google).

Results: Of 46 cases reviewed, 36 were due to intentional poisoning. 93% consumed tubers while rest have consumed seeds. 12 patients died. Of total population, 12 patients developed renal failure after 24 hours post ingestion. Oliguria was more common. Medium serum creatinine level was 3.3 (1.4-3.5) mg/dl of 5/12 patients with reported kidney injury. Blood urea nitrogen levels were reported in 5 patients had median level of 61 (49-68) mg/dl. Rhabdomyolysis reported in 2 patients. No tubular damage was reported.

Conclusions: Ingestion of *Gloriosa superba* caused AKI and can be pre-renal due to hypovolemic shock. Rhabdomyolysis and multiorgan failure are may be other mechanisms of renal injury. In none of these cases, no tubular biomarkers have been measured. Therefore the tubular damage cannot be precluded as a mechanism of kidney injury. Hence, measurements of novel renal biomarkers are recommended to proper diagnosis of tubular damage.