

ROTUNDIN POISONING IN VIETNAM

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Introduction: Rotundin (L-tetrahydropalmatin) was extracted from the plant *Stephania rotunda* which has been known for the sedative and analgesic effects and used widely in Vietnam. However, this agent has been increasingly used without prescription and the incidence of poisoning ensued as a result.

Methods: This is a prospective descriptive study. All the patients overdosed with rotundin (by history and sample of medications from the patients), with the urine or gastric fluid positive with rotundin by thin layer chromatography were admitted to our poison control center from December 2003 to January 2005.

Results: 122 patients (27 males, 22.1% and 95 females, 77.9%) were included. Age of the patient: 23.6 ± 6.3 (12 - 52 yr), reasons for poisoning was suicide in 120 patient (98.4%). The mean dose was 1258.7 ± 1082.81 mg (range: 300 - 6000mg). Severity of poisoning: mild: 69.7%, moderate: 25.4%, severe: 2.5% and no death occurred. The most common symptoms were CNS depressant (32.8%), nausea (22.1%), vomiting (20.5%), sinus bradycardia (3.3%) and hypotension (0.8%). ECG abnormalities accounted for 74.6% of the patients including prolonged QT (27%), sinus extrasystole (3.3%), 1st degree AV block (1.6%). Sinus bradycardia, sinus tachycardia, elevated ST segment, T wave inversion were also observed. Very mild elevation in AST and ALT were seen in 7.4% of the patients. The dose of rotundin was 77.8 ± 474.09 mg in patients with normal ECG and 1432.0 ± 1185.8 mg in patients with ECG abnormalities ($P = 0.004$). The dose of rotundin was 1172.0 ± 1026.67 mg in totally conscious patients and was 1346.9 ± 1139.23 mg in patients with CNS depressant ($P = 0.385$).

Conclusion: Rotundin only causes mild CNS inhibition (if any). However, in our patients, it also causes cardiac abnormalities which associate with higher doses.