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CLINICAL PRESENTATION AND CAUSES OF GELSEMIUM POISONING IN HONG KONG: REVIEW OF 24 CASES

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Objectives: To study the clinical presentations and causes of gelsemium poisoning in Hong Kong.
Methods: This is a retrospective chart review on poisoning cases due to the poisonous Gelsemium plant. All laboratory-confirmed clusters and cases recorded by the Kong Poison Information Centre (HKPIC) from 1st July, 2005 to 30th April, 2012 were included.
Results: 24 cases, 11 male and 13 females, age ranged from 14 -69 year old (mean age 44 y.o.) of gelsemium poisoning were identified. Twenty-two of them came from 8 clusters. Twelve patients were poisoned due to the contamination or misidentification of another benign herb. The benign herbs involved were Ficus simplicissima Lour (五指毛桃) in 2 clusters, Folium Mussaenda Pubescentis (玉葉金花) in 1 cluster, and Morindae Officinalis Radix (巴戟天) in 1 cluster. Five other patients in 2 clusters consumed a parasitic plant Cassytha filiformis L. (無根藤). It was observed that C filiformis grew on Gelsemium elegans could accumulate enough toxic gelsemines from the latter to cause human poisoning. Another cluster involved one fatal case and a moderately severe case. In the fatal case, gelsemine was detected in the urine, blood and the broth remnant by targeted forensic investigation. Lastly, 5 patients intentionally consumed Gelsemium elegans Benth (斷腸草), in which one was a suicidal attempt, while others took it as health supplement. In our case series, one patient was found death at home. One presented with coma and respiratory failure that required emergent endotracheal intubation and mechanical ventilation. Other patients common presented with dizziness (96%) and ocular manifestations (46%) which include visual blurring, ptosis, diplopia and nystagmus. Symptom onset ranged from 30 minutes to 2 hours with most cases (75%) had their symptoms onset within one hour. Gastric lavage was performed in one patient (4%), while activated charcoal was given in 8 patients (33%) in which multiple doses were given in 2 patients (8%). All survivors recovered uneventfully.
Conclusions: Gelsemium elegans is an extremely poisonous plant. The case fatality rate in our series was 4% while the reported mortality for previously reported cases was 8%. Gelsemium poisonings frequently presented with quite unique ocular manifestations which are uncommon for other herbs poisonings. Visual disturbance 2 hours after herbs consumption is suggestive of Gelsemium poisoning. Good supportive care particularly respiratory support is the mainstay of management. Poisoning usually resulted from plant part contamination or toxin contamination of species used as a health supplement. The health authorities should warn the public against the high risk plants/herbs. Public education on the symptoms of Gelsemium poisoning may shorten the presentation delay and should improve the clinical outcome. Control on the commercial available high-risk herb should also be considered. In summary, gelsemium poisoning is recurring in Hong Kong, preventive measures, e.g. public education, herbs source control, etc. should be reinforced.