

was observed in herbal medicine poisoning (25 %), then OP poisoning (16 %), methanol poisoning (11 %) and copper sulphate poisoning (9 %). Major risk factors for mortality were: living in rural areas, Sanatan religion, illiteracy, being a farmer, suicide attempt, deliberate self-harm, and the following clinical evaluations—GCS <9, BP <80/60, HR >100/<60, abnormal pupils (especially constricted or pinpoint), and not age, gender and marital status.

**Conclusion:** Multiple logistic regression is desirable to determine independent risk factors for mortality. Clinical scoring system should need to be done for predicting mortality. Detailed analysis should be made of OCP/carbamate poisoning management.

### (92) Protective Effects of Crocin on Diazinon-Induced Subchronic Hepatotoxicity in Rat

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Diazinon is one of the most widely used insecticides in agricultural pest control. Previous studies have shown that diazinon causes hepatotoxicity, reactive oxygen species and apoptosis pathways might be involved in the toxicity of diazinon. On the other hand, crocin from saffron has hepatoprotective effect due to its anti-oxidant activity. In this study, we examined the protective effect of crocin on diazinon-induced subacute hepatotoxicity. Animals were initially divided into five groups. Corn oil, diazinon (15 mg/kg per day, once a day in corn oil via gavage) and crocin (12.5, 25, 50 mg/kg per day intraperitoneally) in combination of diazinon were given to male wistar rats ( $n=6$ ) orally for 4 weeks. The levels of malondialdehyde (MDA) as a marker of lipid per-oxidation and caspases-3, caspases-8 and caspases-9 as markers of apoptosis were evaluated. The result showed that crocin at a dose of 25 mg/kg was significantly effective in decreasing the elevated levels of MDA ( $p<0.001$ ). Our preliminary results indicated the involvement of caspases in hepatotoxicity of diazinon and protective effects of crocin.

### (93) Review on Paraquat Poisoning in Malaysia After Lifting of Ban

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Abstract Text:

**Introduction:** Paraquat is one of the most popular pesticides for weed control in Malaysia. Despite its high toxicity,

it is widely used for its effectiveness. Due to frequent and serious poisoning involving this agent, the use of paraquat was banned in 2005 but was reintroduced into the market a year later and is currently available.

**Objective:** The aim of this study is to assess the outcome of the lifting of the ban and the occurrence of paraquat poisoning in the country.

**Method:** Poisoning cases referred to National Poison Centre (NPC), Malaysia for the period of 2005–2009 were analysed. Special emphasis was directed on herbicide cases involving paraquat exposure. Age, gender, ethnic, route of exposure, reason of exposure, and the number of paraquat calls during the ban and after its re-introduction were evaluated. SPSS version 15 was used for descriptive analysis of the data collected.

**Result:** A total of 278 calls involving paraquat were received during the period of the study. The cases mainly involved adult males (68.4 %) and common among Indians (32.1 %) compared to Chinese (22 %) and Malay (22 %). Suicide attempts were the most common (73.8 %) circumstances of exposure. Accidental paraquat poisoning mostly involved exposure through ingestion (80.6 %), followed by inhalation (12.3 %) and cutaneous (7.1 %).

The number of calls relating to paraquat exposure when it was banned was 67 (36 and 31 in 2005 and 2006 respectively). After its re-introduction, there was a marked increase in the number of cases: 39, 79 and 101 for 2007, 2008 and 2009, respectively.

**Conclusion and Recommendations:** There is an increment in the number of calls received by the NPC involving patients exposed to paraquat from year 2007 to 2009 following the lifting of the ban. This should prompt the Government of Malaysia to review the lifting of the ban. Poor enforcement of regulations on paraquat use has resulted in intentional poisoning involving the chemical. Knowledge on the proper storage and disposal of paraquat must be imparted to its users. Similar study on a national level should be undertaken to have a more comprehensive data on paraquat poisoning.

### (94) Upper Gastrointestinal Bleeding After Aluminum Phosphide Tablet Ingestion: a Case Report

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Abstract Text:

**Introduction:** Ingestion of aluminum phosphide as an agent of self-harm is associated with significant mortality. Some of the survivors end up with dysphagia, and multiple esophageal strictures have been documented in them. The exact cause of the strictures is not known but local impaction and