

difficulty in opening the eye. Her visual acuity was confined to hand movements. The conjunctiva was heavily oedematous and hyperaemic. Fluorescein staining revealed a large epithelial defect covering almost entire cornea. The anterior chamber showed a low-grade uveitis with +2 cells. Intra ocular pressures in both eyes were similar. The eye was patched for 24 h after instilling fucithalamic eye ointment. When examined after 24 h, her pain and conjunctival hyperaemia were less. The epithelial defect showed superficial healing. An area of limbal ischaemia of less than 180° was visible (grade 2 chemical injury). A chemical injury therapeutic regime was commenced. Artificial tears (Carboxymethyl cellulose 0.5 %), ciprofloxacin eye drops, tetracycline eye ointment, prednisolone acetate 1 % eye drops and vitamin C 1,500 mg daily were commenced. She was examined regularly and the treatment was altered in the next few days. On the fifth day of treatment, she had no ptosis, no pain, the conjunctiva was minimally hyperaemic and the limbal ischaemia had reduced. On the 12th day the visual acuity of the eye was 6/6. There were no signs of eye injury. Timely and appropriate intervention can bring excellent recovery from paraquat eye injury as shown in this case.

(30) The Changing Patterns of the Epidemiology of Acute Self-Poisoning in Rural Sri Lanka

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Introduction: Acute poisoning is a major public health issue in many parts of the world. The epidemiology and the mortality rate are different from low- and middle-income countries, including Sri Lanka, to high-income countries. The aim of this study was to provide details about the epidemiology of acute poisoning in a rural Sri Lankan district and to identify the changing patterns and epidemiology of poisoning.

Methods: A prospective study was conducted from September 2008 to January 2010 in all hospitals with inpatient facilities in Anuradhapura district of North Central Province of Sri Lanka. Acute poisoning data was extracted using structured queries from patient charts.

Results: There were 3,813 poisoned patients admitted to all the hospitals in Anuradhapura district during the study period giving an annual age-adjusted population incidence of 459 poisoning cases per 100,000 of population. Although the number of male and female patient were approximately similar, the age distribution differed by gender. More young patients, particularly a larger proportion of females, below age 20 were admitted to these hospitals. Although, pesticides ranked as the most common type of poison, the number of medicinal drug poisonings has increased significantly since 2005 in this area.

Conclusions: The incidence of acute poisoning remains high in this rural setting in Sri Lanka, and the most vulnerable group are young females. Medicinal drug poisoning has increased significantly over last 5 years. This trend indicates that poisoning treatment protocols and guidelines should be adjusted to take account of these changes, and the need for strategies to reduce higher incidences among young population by targeting these groups in focused interventions.

(31) Prescription-Related Problems of Non-Steroidal Anti-Inflammatory Drugs in a Primary Care Setting

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Background: Non-steroidal anti-inflammatory drugs (NSAIDs) are frequently used in the treatment of different painful conditions. Their use is increasing due to the increased incidence of rheumatic diseases. Although generally well tolerated, these drugs are associated with serious adverse reactions such as upper gastrointestinal ulcers and bleeding, hypersensitivity reactions and renal failure. NSAIDs use can improve the quality of life for patients, but may also result in adverse health outcomes if used inappropriately. NSAIDs prescription-related problems (NSAIDs PRPs) can cause considerable morbidity and mortality, and may lead to hospital admission.

Purpose: The objectives of this study are (1) to obtain information regarding the prevalence of NSAIDs PRPs and (2) to determine the demographic and clinical characteristic of patients exposed to these problems.

Methods: We retrospectively collected data from one academic year using computerised databases at the Universiti Sains Malaysia (USM) from patients of USM's primary care. Lists of NSAIDs PRPs were developed from authentic clinical pharmacy and drug information sources. Multivariate regression was used to determine the characteristics of patients exposed to NSAIDs PRPs.

Results: During the study period, 12,622 of NSAID items were Prescribed for 6,518 patients (mean±SD=1.94±1.90). This represented a prevalence of 36 %. Five hundred and ninety one NSAIDs PRPs were identified in a cohort of 434

patients, representing an exposure prevalence of 6.7 % of all NSAID users. Multivariate logistic regression analysis revealed that patients being Malay, being a staff, having multiple prescriptions and having more comorbid conditions were more likely to be exposed to NSAIDs PRPs.

Conclusions: This is the first study in Malaysia that presents data on the prevalence of NSAIDs PRPs. Exposure to these problems is associated with specific socio-demographic and health status factors. These results should help to raise the awareness of clinicians about serious NSAIDs PRPs.

(32) Drug-Facilitated Crime in Tehran, Iran

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Background and Objectives: The objective of this study is to investigate claimed drug-facilitated crime (DFC) in the patients who had been hospitalized in two referral hospitals in Tehran, Iran.

Materials and Methods: All hospitalized patients who were referred on February 2010 to March 2011 and suspected/claimed DFC were included. Those who had taken unknown drugs in the last week before admission or diagnosis of any other cause of poisoning by accident, deliberate self-poisoning or drug abuse were excluded. Toxicological analyses were done after collecting 20-ml urine sample on arrival time using gas chromatography–mass spectrometry.

Results: A total of 53 victims were included. Mean age was 31.6±12.4 years (range 6–75), mostly males. The victims were predominantly workers (41.5 %), from Tehran, with 12 years of schooling (35.8 % diploma), who accepted drinking juice (35.8 %), when commuting inside or inter-city (37.9 %), were stolen thereafter (77.4 %) and brought to emergency department by EMS ambulances (39.6 %) while sleepy (56.6 %) upon arrival. After full consciousness, majority remembered a male gender of offender (77.4 %), who was a stranger (75.5 %) with estimated age range of 22–52 years. Those who noticed significant taste change of potables and edibles were admitted earlier ($p < 0.05$). Thirty eight (71.7 %) victims remembered estimated time of intoxication. Of whom, 92.1 % were admitted before 24 h post-ingestion (range 1–120 h, median 11 h). Two car accidents happened in victims, who were drivers, with no major trauma. Among 53 urine samples analyzed, 10

(18.9 %) were positive for metoclopramide, dextromethorphan, 6 (11.4 %) for tramadol, 5 (9.4 %) for theobromine, 4 (7.5 %) for lorazepam, 3 (5.7 %) for nortetrazepam, codeine, methadone, 2 (3.8 %) for promethazine and 1 (1.9 %) for cypreheptadine, morphine, adduct, carbamazepine and levorphanol. In nine patients, no positive results were obtained.

Conclusion: Our findings show that opioids, benzodiazepines and antihistamines are the most drugs used solely or together in DFC. Metoclopramide as an antiemetic may be used to prevent nausea and vomiting in criminal poisoning to achieve more DFC effects.

Poster Presentations

(33) Bhopal Gas Tragedy—Worst Chemical Disaster

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Bhopal is very much infamous for worst chemical disaster which occurred on night of 2/3 December 1984. Bhopal is situated in central India and is capital of Madhya Pradesh with population of 1,792,203 (2011). The chemical responsible for the accident was methyle isocyanate or MIC (other names are: isocyanatomethane and methyl carbylamine).

Chemical Formula: $\text{H}_3\text{C}-\text{N}=\text{C}=\text{O}$.

Physical/Chemical Properties: Methyl isocyanate (MIC) is a clear, colorless, lachrymatory, sharp-smelling liquid. It is highly flammable, boils at 39.1°C. Methyl isocyanate is soluble in water to 6–10 parts per 100 parts, but it reacts with the water. Methyl isocyanate reacts readily with many substances that contain N–H or O–H groups and some other compounds. It also reacts with itself to form a trimer or higher molecular weight polymers. Methyl isocyanate reacts with water to form 1,3-dimethylurea and carbon dioxide with the evolution of heat (325 calories per gram of MIC that reacts).

Morbidity/Mortality: The government of Madhya Pradesh has confirmed a total of 3,787 deaths. Half a million people were exposed to the gas and 25,000 have died to date as a result of their exposure. More than 120,000 people still suffer from ailments caused by the accident and the subsequent pollution at the plant site.

Present Sufferings: Breathlessness, persistent cough, diminished vision, early age cataracts, loss of appetite, menstrual irregularities, recurrent fever, back and body aches, loss of sensation in the limbs, fatigue, weakness, anxiety and depression are the most common symptoms among survivors. Furthermore, there is an alarming rise in cancers, TB and reproductive health problems. The official agency for monitoring deaths has been closed since 1992.