



**Abstracts Presented at the Middle East and North Africa  
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**1. Alcohol Related Emergency Department Visits Presented to Sultan Qaboos University  
Hospital Emergency Department, Oman**

Suad Al Abri, Sultan Qaboos University Hospital, Emergency Medicine Department, Muscat, Oman  
Maisa Al Riyami, Sultan Qaboos University, College of Medicine and Health Sciences, Muscat, Oman

**Background:** The World health Organization reported in 2016 that alcohol led to 3 million deaths and is ranked as the fifth risk factor for deaths and injuries worldwide. **Objective:** The purpose of this study is to assess all alcohol-related emergency department (ED) visits in Sultan Qaboos University Hospital (SQUH) over four years (2016-2020). **Methods:** This was a retrospective observational study evaluating all alcohol-related ED visits. The data was collected from the Hospital Information System (HIS). Collected data included demographic variables, medical background, psychiatric background, clinical manifestation and outcome. **Results:** A total of 107 patients were included in this study. 98% were male. The age range was 21-75 years. Alcohol intoxication was the more common cause of ED visit (65.4%) while alcohol withdrawal was seen in 34.5%. Smoking and drug abuse was seen in 37.4% and 29% respectively. Liver disease was common and reported in 41% of patients, followed by psychiatric diseases in 34.6%. Seizures as presentation was seen in 48.6% alcohol withdrawal patients compared to 18.5% in alcohol intoxication ( $p=0.001$ ) Patients were admitted to the hospital in 67% of the cases. Alcohol-related death was noted in 4.7% with upper gastrointestinal bleed and sepsis being the most common causes. **Conclusion:** Alcohol-related ED visits are more commonly due to alcohol intoxication Seizure as presentation is associated

with alcohol withdrawal. High morbidity and mortality are associated with alcohol-related ED visits with big cost impact to the health care systems. We suggest more investment in rehabilitation and prevention programs.

## **2. Prevalence of Covid-19 in Drug Abusers and Outcome in Patients Presenting To a Tertiary Care Hospital Emergency Department**

*Suad Al Abri*, Emergency Medicine Department, Sultan Qaboos University Hospital, Muscat, Oman, Muscat, Oman

**Background:** Currently, there is little if any quantitative analysis of the risks and outcomes of COVID-19 infection in individuals with drug abuse. Drug abusers are thought to be at increased risk of COVID-19 infection. **Objectives:** The aim of this study is to describe the prevalence of COVID-19 and outcomes in drug abuser who have presented to the Sultan Qaboos University Hospital Emergency Department (ED) over 1 year. **Methods:** It is a retrospective study that included all patients who presented to Sultan Qaboos University Hospital Emergency Department from March 20120 to January 2021 who had drug abuse screening. Patients were included if they are drug abusers and had a COVID-19 swab obtained. **Results:** A total of 335 patients were identified. Only 66 patients met the inclusion criteria .98.5% (65/66) were male and Omani. The age range was 21-62 years. The COVID-19 test was positive in 7.6% (5/66) of patients while 92.4% (61/66) tested negative. .98.5% presented with respiratory symptoms. 15% (10/66 ) had history infective endocarditis and 36.4 % ( 24/66) had psychiatric disease.56% (37/66 ) are smokers.(55/66) abused morphine while 25.7%( 17/66) abused methamphetamine. 22.7 %( 15/66) of patients were discharged from the ED. 66.6 % (44/66) were admitted to hospital. Mortality was 10.6 % (7/66) in general, with 40% mortality (2/5) in COVID-19-positive drug abusers. **Conclusion:** Although the prevalence of COVID-19 in our drug abusers population was not very high; the mortality rate of COVID-19 positive drug abusers was high. Further studies are required to determine factors that would predict a worse prognosis in this subset of patients.

## **3. Severe Envenomation due to Deathstalker Scorpion Resulting in Motor Aphasia, Seizure and Clonus that Improved after Polyvalent Scorpion Antivenom Administration**

*Waleed.S Alsukaiti*, MD, OMSB EM, Ibri, Oman

*Ayman.J Mahmoud*, MBBS, Ibri, Oman

*Salman A*, MBBS, Ibri, Oman

**Introduction:** The Buthidae family of scorpions are abundant in the Middle East and Oman, especially the genus *Androctonus* and *Leiurus Quinquestriatus*, one of the most dangerous scorpions worldwide. **Case report:** A twenty-one-year-old male presented with pain in the right foot after a scorpion sting; he developed a tonic-clonic movement associated with facial muscle twitching, clonus of the lower limbs and inability to speak during the whole stay in the emergency department. His brother described the scorpion, which was matching the deathstalker scorpion. The jerky movements stopped after administering 5 mg diazepam, but

the clonus and inability to speak persisted. He had facial and tongue fasciculations with remarkable clonus on examination. A polyvalent scorpion antivenom with a dose of 2 vials diluted in 50 ml 0.45 NS was administered. The patient had a full recovery during admission. The lethal dose (LD50) of the *Leiurus quinquestriatus* is 0.25, which is the lowest LD50 among other scorpion species and reflects the highest lethality. The massive surge of neurotransmitters and vasodilators after the sting affects multiple organs and manifest as autonomic, sympathetic and neuromuscular symptoms. Our patient's presentation is considered serious with systemic manifestations. Motor aphasia is the inability to produce speech with intact comprehension. **Conclusion:** This case highlights the severe clinical manifestations due to a sting from the *Leiurus quinquestriatus* scorpion. The early recognition and treatment with benzodiazepines and antivenom may have led to complete recovery.

#### **4. A Case Series of *Cassia Occidentalis* Toxicity in Yemen**

Shaikhah Al-Otaibi, King Fahad Hospital of the University/ Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia

Jameela Kahtan , AL Thawra Modern General Hospital, SANA'A, Yemen

Razan Faisal, King Fahad Specialist Hospital, Dammam, Saudi Arabia

Kholoud Al-Arass, AL Thawra Modern General Hospital, SANA'A, Yemen

Ziad Kazzi, Emory University, Atlanta, USA. Georgia Poison Center, Atlanta, USA

**Introduction:** *Cassia Occidentalis* is a plant used as a homeopathic remedy. It contains anthraquinones that deplete glutathione. The toxicity affects the hepatic and central nervous systems and causes a significant elevation in transaminases. There are a few reported fatalities in children with no proposed specific treatment. **Case presentations:** We are reporting four children in Yemen who presented to a hospital after accidentally ingesting an unknown amount of *Cassia Occidentalis* seeds. The first two children were 4 and 2 years old and presented on the day of ingestion with vomiting and lethargy. They rapidly deteriorated and developed irritability, seizures, and coma. Their liver enzymes (AST, ALT) reached 2000 IU/L. On the 2nd day, they died after sustaining cardiac arrest. The third child was a 4-year-old girl who presented five days after the ingestion with vomiting and lethargy. Her vital signs were normal, and liver enzymes were elevated. On the 9th day, she was started on N-acetylcysteine for a 21-hr protocol, and liver enzymes decreased during the treatment period. After stopping N-acetylcysteine, AST and ALT increased again. N-acetylcysteine was restarted, and the patient's AST and ALT decreased and normalized on the 25th day of admission. The fourth child is a 6-year-old boy who presented on the 5th-day post-ingestion with vomiting. Vital signs and examination were normal. AST and ALT were elevated but decreased throughout his admission with supportive treatment. **Conclusion:** As the proposed mechanism of liver toxicity is depletion in glutathione, N-acetylcysteine may be used as a therapeutic adjunct to supportive care.

## 5. Use of Castor Beans as Laxatives: Two Case Reports and Random Herbal Store Visits

Waleed Al Sukaiti, Emergency Department at Ibri Hospital, Ministry of Health, Muscat, Oman

Suad Al Abri, Emergency Department at Sultan Qaboos University Hospital, Muscat, Oman

**Background:** Castor beans are found in castor oil plants (*Ricinus communis* L). The ingestion of the seed is only toxic if the outer shell is broken or if the bean is chewed. Ricin remains in the bean pulp following the separation of the oil from the beans. No ricin remains in the oil as it is inactivated during extraction if done under proper heating conditions. **Cases Summary:** We report two patients, A 27-year old man and a 26-year old man with no previous medical illness, presented to two different emergency departments, with severe abdominal pain and diarrhea which was initially watery very frequent, then became bloody. The first patient got it from a local herbal store for constipation, while the second patient received it from a friend as a prank to induce diarrhea. The first patient developed symptoms after 1 hour while the second patient developed symptoms within 30 minutes of ingestions. On clinical examination, both appeared fatigued and dehydrated, otherwise the vital signs and systemic examination was unremarkable. Initial investigations were normal including ECG. Both patients were admitted for 48 hours for supportive care and were discharged in good conditions. **Traditional herbal shops visits:** We completed random visits to five different herbal shops in Ibri asking for laxatives beans. Three of the shops recommended using it as laxatives with doses ranging from 1/3 to one bean. No special precautions or warnings were given. **Conclusion:** Castor beans are used commonly in traditional herbal shops as laxatives with no special precaution. Health awareness is needed about the beans toxicity.

## 6. Successful Management of Severe Verapamil Overdose with VA-ECMO

*Vildan Özer*, Karadeniz Technical University, Trabzon, Turkey

*Oğuzhan Ahmet Küçük*, Karadeniz Technical University, Trabzon, Turkey

*Ahmet Eroğlu*, Karadeniz Technical University, Trabzon, Turkey

*Kibar Yaşar Güven*, Karadeniz Technical University, Trabzon, Turkey

*Hüseyin Çetin Ketenci*, Trabzon Forensic Medicine Group Presidency, Trabzon, Turkey

*Aynur Şahin*, Karadeniz Technical University, Trabzon, Turkey

*Ziad Kazzi*, Emory University, Atlanta, USA

**Introduction:** Calcium channel blocker poisonings are an important cause of death from overdose worldwide and new therapeutic approaches and antidotes are still being researched. The purpose of this case report is to discuss successful management of severe verapamil overdose with VA-ECMO.

**Case Report:** A 36-year-old male with a history of hypertension and multiple suicide attempts presented to our emergency department approximately 45 minutes after ingesting in a suicide attempt, his own 42 tablets of Verapamil Hydrochloride/Trandolapril-Immediate Release, 240/4 mg per tablet, 9 tablets of Mirtazapine 15 mg per tablet, and 14 tablets of Isosorbide Dinitrate 5 mg per tablet. He was alert, oriented and cooperative. His initial vital signs were stable. In bedside ECHO, was unremarkable. Fifty-five hours after the ingestion, the blood pressure decreased to 70/50 mmHg and the heart rate was 62 beats per minute. He was given calcium gluconate, glucagon and high dose insulin dextrose regimen as antidotal therapies but the hypotension was resistant to antidotal treatment and high dose vasopressors. The ejection fraction remained normal by bedside ECHO. The patient was intubated and mechanically ventilated

followed by placement on the ECMO Device with epinephrine infusion 60 hours post-ingestion. Vasopressor support was discontinued on the 7<sup>th</sup> day of post-ingestion. The ECMO catheter was discontinued on the 8<sup>th</sup> day of hospital admission and the patient was discharged on the 11<sup>th</sup> day of hospital admission. The blood drug level of the patient was analyzed with LC/MS/MS Device in the Forensic Medicine Laboratory.

**Conclusion:** Although ECMO use is increasing in poisoned patients, it is still infrequent. In poisoned patients, ECMO should be considered early in cases where the history and initial clinical findings point towards a critical overdose with high risk of death.

## **7. Massive Pulmonary Hemorrhage and Cardiac Arrest with Survival after Chlorpyrifos Poisoning Treated with Standard treatment, Fresh frozen Plasma and High-Frequency Oscillatory Ventilation**

*Prem Kumar*, Pediatric Intensive Care Unit, Sultan Qaboos University Hospital, Muscat, Oman.

*Suad Al Abri*, Emergency Medicine department, Sultan Qaboos University Hospital, Muscat, Oman.

*Raghad Abdwani*, Pediatric Intensive Care Unit, Sultan Qaboos University Hospital, Muscat, Oman.

*Zahraa Lawati*, Pediatric Intensive Care Unit, Sultan Qaboos University Hospital, Muscat, Oman.

*Nagaram Dhande*, Pediatric Intensive Care Unit, Sultan Qaboos University Hospital, Muscat, Oman.

*Hiam Zeidan*, Emergency Medicine department, Sultan Qaboos University Hospital, Muscat, Oman.

**Background:** Significant organophosphorus poisoning is uncommon in children in our Oman. Chlorpyrifos is a chlorinated organophosphate with significant toxicity and is commonly used as an anti-termite treatment. It is available in highly concentrated liquid formulations making even a small amount of accidental ingestion significant in children. **Case Summary:** We present a 7-year old girl known case of trisomy 21 presented to the emergency department after 30 minutes of accidental ingestion of chlorpyrifos liquid stored in a juice bottle. She was asymptomatic apart from mild nausea, and on examination, she had normal vital signs and normal mental status; however, she had pinpoint pupils. Within 30 minutes from starting activated charcoal, she started vomiting and became unresponsive. She was immediately intubated and ventilated, followed by atropine and pralidoxime bolus and infusion. She was then admitted to PICU and developed severe bronchorrhea and pulmonary hemorrhage, which was complicated with cardiac arrest secondary to hypoxia, requiring CPR for 5 minutes. She developed hypotension, requiring high doses of inotropes. She also developed rhabdomyolysis, which was complicated by acute kidney injury treated supportively. She was put on high-frequency oscillatory ventilation (HFOV) for pulmonary hemorrhage in addition to IV factor VIIa and fresh frozen plasma (FFP). After ten days of PICU admission, she was extubated successfully and discharged home without any neurological deficit. **Conclusion:** Chlorpyrifos poisoning can have life-threatening complications like pulmonary hemorrhage and severe respiratory distress syndrome. FFP and HFOV in addition to atropine and pralidoxime and standard treatment, may have contributed to the survival of this patient.

## **8. Type 2 Brugada phenocopy due to supra-therapeutic phenytoin level**

*Haris Iftikhar*, Hamad Medical Corporation, Doha, Qatar

*Khalid Bashir*, Hamad Medical Corporation, Doha, Qatar

**Introduction:** Brugada syndrome (BS) is a hereditary cardiac disease leading to sudden cardiac death. Brugada phenocopy (BrP) is an evolving term for Brugada like ECG patterns due to reversible causes. Type 2 BrP secondary to supratherapeutic phenytoin level is not previously described including its significance in terms of evaluation, disposition, and follow-up. **Case report:** A 29-year old male was brought after episodes of witnessed seizure with loss of consciousness and postictal confusion. He denied trauma, tongue biting, urinary or bowel incontinence, aura, chest pain, palpitations, or shortness of breath. He denied family history of cardiovascular diseases including sudden death. His physical exam, blood investigations, and CT head were unremarkable. The diagnosis of epilepsy was made. He was loaded with slow IV phenytoin 1500 mg (18.75mg/kg) infusion. After the infusion, the patient developed severe dizziness, nystagmus, and limb ataxia. His blood glucose was 5.6 mmol/l. His ECG showed type 2 BrP (Figure 1,2). His phenytoin level was 127.6 umol/l (therapeutic range: 40-79 umol/l). A toxicology consult was requested and he was admitted. His phenytoin level was 65.2 umol/l at 46 hours. His symptoms had completely resolved with normal ECG (Figure 3). **Conclusion:** This case illustrates the need for thorough history to exclude arrhythmia, syncope, or family history of sudden cardiac death in such cases. If history is concerning, patients need a cardiology follow-up to test for Brugada syndrome. Repeat ECG on discharge is helpful to confirm the reversibility. To summarize, BrP can be observed in patients taking antiepileptic drugs, particularly with supratherapeutic levels.

## 9. Cocaine-Induced Syndrome of Inappropriate Antidiuretic Hormone Secretion and Serotonin Syndrome

Vildan Özer, Karadeniz Technical University, Trabzon, Turkey

Mehtap Pehlivanlar Küçük, Karadeniz Technical University, Trabzon, Turkey

Mustafa Uzun, Karadeniz Technical University, Trabzon, Turkey

Ayşenur Pir, Karadeniz Technical University, Trabzon, Turkey

Aynur Şahin, Karadeniz Technical University, Trabzon, Turkey

**Introduction:** Cocaine is a sympathomimetic agent. It acts in the nervous system by blocking the presynaptic reuptake of serotonin and catecholamines, increasing their bioavailability at postsynaptic receptors, which can stimulate ADH release. We aimed to present a rare case report of cocaine induced syndrome of inappropriate antidiuretic hormone secretion (SIADH) and Serotonin syndrome (SS). **Case Report:** A 42-year-old female patient presented to the emergency department with confusion and agitation after smoking cocaine. On her physical examination, she had hyperreflexia, ocular and inducible clonus and hyperthermia (38.3 °C). She was diagnosed with serotonin syndrome and started on Cyproheptadine, a serotonin antagonist, via nasogastric tube. Diagnostic laboratory tests were normal except hyponatremia (119mEq/L) and urine osmolality was above 100 mOsm/kg. Her urine drug screen was positive for cocaine and negative for amphetamines and MDMA. She denied being exposed to any other serotonergic agents. The patient was conscious and electrolytes were normal at the 26th hour of observation. **Discussion and Conclusion:** Although there are limited case reports in the literature regarding cocaine induced serotonin syndrome and SIADH however this is the first

case report that includes both syndromes. In cases of serotonin syndrome due to cocaine, there is usually co-ingestion of another serotonergic agent in medical history. As a conclusion physicians should be aware of these syndromes as complications of cocaine use.

### **10. Scorpion Fish Sting : A Case Report**

Vildan Özer, Karadeniz Technical University, Trabzon, Turkey  
Aynur Şahin, Karadeniz Technical University, Trabzon, Turkey  
Engin İlhan, Karadeniz Technical University, Trabzon, Turkey  
Sinan Paslı, Karadeniz Technical University, Trabzon, Turkey  
Melih İmamoğlu, Karadeniz Technical University, Trabzon, Turkey  
Ziad Kazzi, Emory University, Atlanta, USA

**Introduction:** Scorpionfish is a member of the family Scorpaenidae, which includes zebrafish, lionfish, and stonefish. They have erectile spines that carry toxic venom, on their dorsum. Poisonings are usually from the sting of scorpionfish. We aimed to discuss a case of scorpionfish sting and the management of toxic clinical effects. **Case Report:** A 52 year old female with a medical history of hypothyroidism presented with severe local pain to the emergency department after a sting from scorpion fish on her right hand. On her admission she was hypertensive (BP:190/100) but other vitals were normal. She had 4 sting lesions with progressive swelling and flushing between the right hand and ankle. The affected extremity was immersed in hot water as tolerated until there was significant pain relief. Analgesics, antihistamine, and steroid (prednisolone 1 mg/kg) were administered intravenously. Symptoms resolved on the 8th hour of observation. **Discussion:** Scorpaenidae family is widespread in the East Atlantic Ocean, in the Mediterranean and the Black Sea. Scorpaenidae envenomation can cause vasodilation, hypotension, muscular weakness, and neuromuscular paralysis. In humans, initial symptoms include intense burning pain at the puncture site, and systemic symptoms may include the following: headache, weakness, diaphoresis, nausea, vomiting, abdominal pain, hypotension, chest pain, cardiac arrhythmias, myocardial ischemia, syncope, and even pulmonary edema. Supportive therapy includes hot water immersion, tetanus prophylaxis, analgesics, antibiotic prophylaxis, antihistamines. **Conclusion:** Emergency physicians should be aware of the management of marine envenomation.

### **11. Acute Yellow Oleander (Thevetia peruviana) Poisoning: A Case Report of Asymptomatic Ingestion in Saudi Arabia**

Noof Alabdulwahab, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia  
Halah AlMuhaidib, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia  
Shaikhah Al-Otaibi, King Fahad Hospital of the University/ Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia  
Dunya Alfaraj, King Fahad Hospital of the University/ Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia

**Introduction:** Thevetia peruviana or yellow oleander is widely used as a home plant. It has green leaves, yellow flowers, and fruit containing seeds. Yellow oleander is considered a fatal

plant, and it contains cardiac glycosides in all its parts with different concentrations more in the seeds, which produces digoxin-like toxicity. The toxicity caused cardiovascular symptoms, like arrhythmias, atrioventricular block, and gastrointestinal symptoms. Case reports of asymptomatic yellow oleander ingestion are limited. **Case Presentation:** We are reporting a 57-year-old lady who presented to the emergency department five hours after ingestion of a yellow oleander fruit without its seeds as she thought it is edible. The fruit was 3.4 grams. The patient was asymptomatic. She was fully conscious and not in distress. Vitals signs were normal, all systematic examinations were normal. ECG showed normal sinus rhythm and intervals. Labs showed normal electrolyte levels and undetectable serum digoxin level. The patient was admitted for 24 hours observation, with serial ECGs and labs. She remained asymptomatic during her stay. All labs and ECGs were normal. After discharge, the patient was asked to monitor her heart rate at home for four days and was in the normal range from 90 - 99 beats/minute. **Conclusion:** Ingestion of one fruit (3.4g) of the yellow oleander can be asymptomatic, as our patient presented and discharged asymptotically after the ingestion. Although we need more studies regarding the fruit's toxic dose as we can't rely on the numbers of fruits where the sizes are varied.

## **12. Ingestion of Unknowns Seeds Can Cause Fatality: The Case Series of Ricin Toxicity**

Vildan Özer, Karadeniz Technical University, Trabzon, Turkey

Şükriye Taşçı Karagöl, Karadeniz Technical University, Trabzon, Turkey

Hüseyin Çetin Ketenci, Forensic Medicine Institute Trabzon Group Presidency, Trabzon, Turkey

Aynur Şahin, Karadeniz Technical University, Trabzon, Turkey

Ziad Kazzi, Emory University, Atlanta, USA

**Introduction:** Ricin is a protein toxin obtained from castor beans (*Ricinus communis*) that causes protein synthesis inhibition. It is classified as category-B biological threat by the CDC and is recognized as a potential chemical weapon. In this case series, we presented two ricin intoxicated patients due to accidental ingestion of castor beans that were thought to be nontoxic by the patients. **Case Series:** 56 (case 1) and 73 year-old (case 2) females presented with abdominal pain, severe nausea and multiple episodes of vomiting, and diarrhea 4 hours after chewing and ingesting unknown seeds (amount of seeds respectively; 5 and 15). They brought the seeds to the emergency department and the seeds were identified as castor beans. Both patients had abdominal tenderness. Case 1's blood tests were unremarkable and symptoms resolved in 96 hours with symptomatic therapy. Case 2's serum lactate levels were elevated (28mg/dL) even with aggressive fluid resuscitation. Symptoms specifically severe diarrhea have lasted for 10 days of observation. Ricin toxin was detected in the blood and urine of both cases with LC/MS technique. Both patients were discharged without any long term complications. **Discussion:** Ricin is a toxalbumin that inhibits the function of ribosomes, the subcellular organelle responsible for protein synthesis. Following ingestion, GI symptoms including bloody diarrhea, nausea and vomiting occurs. Absorption of toxin into the systemic circulation allows widespread distribution and multisystem organ failure. Although deaths due to oral ingestion of 2 seeds have been reported in the literature, there are also cases that survived oral ingestion of 200 seeds. The treatment is supportive.

### 13. Fatal Methotrexate Induced Leukoencephalopathy

*Vildan Özer*, Karadeniz Technical University, Trabzon, Turkey

*Hüseyin Çetin Ketenci*, Forensic Medicine Institute Trabzon Group Presidency, Trabzon, Turkey

*Aynur Şahin*, Karadeniz Technical University, Trabzon, Turkey

*Ziad Kazzi*, Emory University, Atlanta, USA

**Introduction:** Methotrexate (MTX) which is a folic acid antagonist causing impairment of purine/pyrimidine synthesis is toxic to many organs including the bone marrow, liver, gastrointestinal system, dermatological and hematological systems. We present a case of MTX induced leukoencephalopathy with a fatal outcome. **Case Report:** A 78-year-old female patient presented with fatigue, decreased oral intake, oral mucositis and fever after accidental ingestion of 5 mg MTX daily for about 12 days as her antidepressant therapy. WBC: 140/mm<sup>3</sup>, Neutrophil: 0/mm<sup>3</sup>, Hg: 8g/dL, PLT: 18.000/mm<sup>3</sup>. Serum MTX level on the day of her presentation was 6.65 mcmol/L (upper limit 0.01 mcmol/L). High dose folinic acid and filgrastim were administered. At the time of admission, the Glasgow coma score was 15. One day later, a brain MRI was performed because of the development of confusion and neurological deficits. Bilateral acute infarction was noted. The patient's clinic was thought to be leukoencephalopathy due to MTX toxicity. Despite aggressive treatment with folinic acid and supportive therapy including antibiotics, high dose vasopressors, cardiovascular collapse occurred due to severe septic shock and the patient died on the fourth day of observation. **Conclusion:** Mortality and cerebral complications are very rare in MTX toxicity. Exposure for less than a month is considered to potentially cause subacute neurotoxicity and usually presents as fluctuating neurological symptoms with altered hemispheric involvement. It causes hemiparesis, ataxia, speech disorders, seizures and confusion, which is called "stroke-like syndrome". Restricted diffusion in DWI is a reliable early sign of acute MTX encephalopathy and improves as the clinical condition improves, although mild abnormalities persist on MRI.

### 14. Winning A Battle Against A Death Stalker: *Apistobuthus pterygocercus* envenomation induced cardiomyopathy, Case report

*Adawiya Al Jamei*, Nizwa Hospital, Nizwa, Oman, Ministry of Health, Muscat, Oman

*Hamood Al Shueili*, Nizwa Hospital, Nizwa, Oman, Ministry of Health, Muscat, Oman

*Badria Alhatali*, Poison Control Section, Ministry of Health, Muscat, Oman

**Introduction:** Scorpion sting is a common presentation in Oman. *Apistobuthus* is a genus of scorpions in the family Buthidae, which can be fatal in children. It causes excessive catecholamine release, leading to myocardial sensitivity and cardiomyopathy. We report a confirmed case of *Apistobuthus pterygocercus* envenomation induced cardiomyopathy. **Case report:** A 6-year-old child presented at primary hospital 10 minutes after the sting at his right foot dorsum. He developed vomiting, sweating, confusion and irritability. His heart rate was 180 beats/min, and blood pressure 150/85mmHg with saturation of 99% in room air. The child was treated as anaphylaxis and transferred to a secondary care hospital. Twelve hours later, he

was noted to be agitated, confused, hallucinating, tachypneic with oxygen saturation <80% on room air. His heart rate was 160 beat/min and blood pressure was 97/50mmhg. He required 4 doses of Saudi scorpion antivenom, 5 mL each and repeated doses of benzodiazepines to control his agitation. Subsequently, he developed evidence of cardiomyopathy with troponin of 2208 pg/mL, BNP of >35000 pg/ml, and creatine kinase of 3334 u/l. His echocardiography showed severe dilated cardiomyopathy with EF <30%. The child was intubated 22 hours after the sting and kept on adrenaline, dobutamine and furosemide infusion. His condition improved over time and extubated 3 days later. He was discharged on day 6 of admission with normal echocardiography. **Discussion:** Scorpions envenomation can cause serious complications like cardiomyopathy. Availability of antivenom is crucial in the management.

### 15. Bitter Cucumber Toxicity

Dr Rana J. H. Hussein (MBBS, MRCEM, CABEM); Manaa A Vincent(PharmD), HMC, Qatar

**Background:** There is a growing trend for traditional medicine across the globe. Many people prefer to take herbal medicines and remedies instead of pharmaceutical products. *Citrullus colocynthis* (bitter cucumber), is used by diabetic patients as a hypoglycemic agent, but it has been reported to cause gastrointestinal disorders in some patients. In this case report we highlight the toxicity caused by *Citrullus colocynthis* (bitter cucumber).

**Case report:** A 47 year old Egyptian male presented to the Emergency Department with abdominal pain and bloody diarrhea after consuming bitter cucumber juice for weight loss. He had 30 episodes of acute diarrhea associated with abdominal pain. The diarrhea was watery at first but became bloody in the course of his illness. He has a past history of peptic ulcer disease. His vitals were BP: 150/84 mm of Hg, PR: 88 bpm, Temperature: 36.9 C, RR: 18/min. Examination showed mild tenderness in the epigastrium, no guarding. He had no jaundice or pallor. Proctoscopy was performed and showed no anal fissures, no external or internal hemorrhoids, no blood in the rectum and the distal rectal mucosa was found to be normal. He was started on conservative management (antibiotic, proton pump inhibitors and hydration). Blood tests for CBC, kidney and liver functions, lipase, venous blood gas, coagulation profile were all within normal limits. Stool occult blood test was negative. In view of the profuse hemorrhagic diarrhea, gastroenterologist was consulted and he advised to admit the patient overnight for observation and possible colonoscopy/endoscopy in the morning. Patient was put on symptomatic management and close monitoring for hemodynamic instability. The next day, the frequency of diarrhea had decreased and the bleeding had stopped. The patient was feeling better. No colonoscopy was performed and the patient was discharged on PPI and antibiotics. He was given an urgent appointment for follow up in the Gastroenterology clinic.

**Conclusion:** *C. colocynthis* may have multiple therapeutic benefits, but some of the most frequently reported complications such as diarrhea, hematochezia, nephrosis, vomiting, and liver impairment have placed it amongst the most toxic plants. It can induce hepatocyte necrosis and fibrosis. Further studies are necessary to understand the nature of its toxicity.

## 16. Peganum Harmala intoxication: the traditional herbal anxiolytic

Dr Rana J. H. Hussein (MBBS, MRCEM, CABEM); Dr Haris Iftikhar (MBBS, MRCEM)

**Background:** Peganum harmala is a perennial plant that grows in the Mediterranean region, Middle East and North Africa. Popularly known as Harmal or Syrian Rue. It is used as an anxiolytic, mood enhancer, aphrodisiac, sedative, antibacterial and abortifacient. It causes toxic effects affecting the gastrointestinal, nervous and cardiovascular systems. There are limited studies delineating the toxicity caused by P. harmala. We are reporting an interesting case of toxicity induced by ingestion of powdered P. harmala. Our aim from this case report is to highlight the potential adverse effects caused by this herbal traditional remedy. **CASE:** 32-year-old female patient with no significant comorbidities presented to the ED with complaints of vomiting, epigastric pain and loose stools since midnight after taking Peganum harmala to relieve anxiety. She had taken a quarter of a small coffee cup of the medication half an hour before commencement of her symptoms. This herbal medication was given to her by a traditional Iranian healer. She had taken the same medication about 2 months ago without complications. But this time she had taken twice the dose and developed visual hallucinations with gastrointestinal symptoms. The patient has a history of mild gastritis. She has been intermittently having anxiety and panic attacks but was not willing to see a psychiatrist due to social stigma. The patient denied fever, vomiting, dizziness, weakness, tingling, euphoria, agitation, unsteady gait or convulsions. Physical exam showed a temperature of 37.2 °C (Oral) Respiratory rate of 18/min, blood pressure of 122/78 mm of Hg and saturations of 99%. She appeared well with no signs of dehydration or jaundice; while abdominal and nervous system examination was normal. She was managed conservatively with fluids, antiemetics and proton pump inhibitors. Investigations were done including renal & hepatic functions, metabolic panel, coagulation profile, acetaminophen level, lactic acid, creatine kinase, lipase, venous blood gas, electrocardiogram, random blood sugar and serum pregnancy test. All reports and ECG were normal. Patient was admitted for observation as per the toxicologist's consultation. She was observed for hemodynamic instability, altered mental status and seizures. The diarrhea and vomiting improved and the visual hallucination resolved on the 2<sup>nd</sup> day of admission. She was discharged and advised not to use the herbal medication again and consult a psychiatrist. **Conclusion:** P. harmala may have therapeutic effects against several ailments but it can cause serious toxicity too. Management is supportive. Prognosis is generally favorable.

## 17. Thiamethoxam Toxicity: Atropine Is Not Always The Rescue

Dr Rana J H Hussein (MBBS,MRCEM,CABEM); Dyomgy Devi( PharmD), HMC, Qatar

**Background:** Intentional consumption of pesticides and insecticides has often been a means of committing suicide in the Asia Pacific region. Neonicotinoids are a new generation of insecticides which have a better safety profile than organophosphates. In this case report we would like to highlight the toxicity caused by Thiamethoxam, a third generation neonicotinoid. **Case:** a young male presented to the emergency department with seizures after intentionally

consuming a bottle of Thiamethoxam one hour before arriving at the hospital, in a suicidal attempt. He was known to suffer from diabetes mellitus and was on an oral hypoglycemic agent. His vital signs were BP140/90 mm of Hg PR 125 bpm, RR 30/min, SpO<sub>2</sub>: 98%, T: 36.4 C, blood glucose 18mmol. ECG showed sinus tachycardia. Examination did not show any mioiosis, no moist skin, no bradycardia, no wheezes/crackles. He was started on Lorazepam 4 mg IV and 1L of 0.9% normal saline. ABG showed severe metabolic acidosis, pH 6.9, lactic acid 7 mmol/l and he was given sodium bicarbonate IV 50ml, 8.4% . Despite being drowsy, the patient had a nasogastric tube inserted and 300 ml of milky fluid was aspirated followed by administration of 50mg of activated charcoal. The consulting toxicologist advised to consider intubation, conservative treatment and admission for close monitoring. Chest x-ray showed a right lower lobe infiltrate. Rest of the blood reports were normal. He was admitted to the intensive care unit. He continued to have tachypnea and acidosis, warrants intubation. Patient was started on fentanyl, midazolam, propofol infusion, insulin infusion and IV fluids. Over 12 hours, the patient improved. Next day he developed fever and chest x-ray showed worsening of the infiltrate while blood culture was positive for Kleibseilla pneumonie. He was started on amoxicillin/clavulonic acid. The patient was extubated on the 3rd day of admission and continued on the antibiotics orally. He was discharged after 10 days of hospital admission with oral benzodiazepines and follow-up in the psychiatric clinic. **Conclusion:** In this case report we wanted to highlight that although neonicotinoids act selectively on insects, they are not void of human toxicity. Further research needs to be conducted to investigate their short term and long term effects.