Unusual Brain Hemorrhage in Severe Methanol Intoxication

Sungmin Lee*, Jeongmi Moon

Department of Emergency Medicine, Chonnam National University Hospital, Korea
Corresponding Author: Sungmin Lee (sungminlee@chonnam.ac.kr)

Context: Methanol, through its chief metabolite, formate, causes irreversible neurological damage such as basal ganglia ischemia or hemorrhage. We report the unusual brain CT findings, falx and tentorial hemorrhage in patient poisoned with methanol.

Case Details: A 32-year-old man presented with altered mental status, and high anion gap metabolic acidosis. Serum methanol level was significantly elevated (641.5 mg/dL), osmolar gap of 12.4 mOsm/kg.

Discussion: Clinicians should have high index of suspicion for basal ganglia, falx, or tentorial hemorrhage when patient presents with altered mental status, and severe acidosis after methanol poisoning. Cerebral hemorrhage at multiple site may predict a poor outcome in patients with methanol poisoning.

Two Cases of Methomyl Pesticide Intoxication with Methanol in Suspension and without Methanol in Powder

Kyungman Cha, Byung Hak So*, Hyung Min Kim, Won Joong Jung
Department of Emergency Medicine, College of Medicine, The Catholic University of Korea, Korea

Corresponding Author: Kyungman Cha (sohak@catholic.ac.kr)

Methomyl is carbamate pesticide. We have summarized two cases of methomyl intoxication of suspension concentrate with methanol and wettable powder without it.

A 53-year-old woman was brought to the emergency department (ED) in an unresponsive state after ingestion of 200ml methomyl in suspension. She had collapsed in 1 minute after ingestion. After successful resuscitation, IV atropine, vasopressor, ethanol, mechanical ventilator, continuous renal replacement therapy (CRRT) and extracorporeal membranous oxygenation (ECMO) were initiated. Metabolic acidosis was corrected with an anion gap of 28.1 mEq/L, osmolar gap of 12.4 mOsm/kg.

On 4th hospital day (HD), asystole cardiac arrest occurred. After 20 minutes, resuscitation was suspended. Initial serum ethanol level was 161 mg/dL, pseudocholinesterase level 391 U/L, methanol level in urine 589 mg/L. A 43-year-old woman was brought to the ED in stuporous mental status after ingestion of 100ml solution of liquor and methomyl powder. She showed cholinergic symptoms. Metabolic acidosis was checked with anion gap of 20.7 mEq/L, osmolar gap of 9.8 mOsm/kg.

Atropinization was initiated. On 2nd HD, Systolic blood pressure fell, in echocardiography, akinesia of mid to apical wall of left ventricle with 39.8% of ejection fraction was shown. On 5th HD, cyanosis on 4 distal extremities was observed, IV heparin was started.

On 11th HD, patient’s mental status recovered. On 23rd HD, both below-knee amputation and wrists disarticulation were performed. Initial pseudocholinesterase level was 2173 U/L.

We believe the patient’s mental status in case 1 was related to methanol rather than ethanol or methomyl. Early collapse of the patient might be due to synergistic effect of methanol and methomyl.

Wetable powder of methomyl does not contain methanol, which had affected recovery of the patient in case 2. This case report suggests that the patient suspected intoxication with suspension of methomyl/should be treated in the manner of co-ingestion with methanol such as hemodialysis.

What Is The Proper Criteria for Trauma Team Activation at Level 1 Trauma Center in South Korea?

Han Joo Choi*, Gab Teng Kim†, Sung Bum Oh‡, Dhan Young Ko‡, II Kook Choi†, Min Jung Kim†
1Emergency Medicine, Dankook University Hospital, Korea
2Emergency Medicine, Dankook University Hospital, Korea
Corresponding Author: Han Joo Choi (iqtus@hanmail.net)

Application of the proper field triage system for trauma patients can make a fundamental role for saving life at trauma center. We want to evaluate the accuracy of the present field triage manual and suggest more proper criteria for trauma team activation at level 1 trauma center.

Methods: We reviewed the Trauma-Registry of one regional level 1 trauma center from January 2013 to July 2014. Registry-datum were collected prospectively and we analyzed this data with retrospective manner.

Total 3571 patients were enrolled in our database. We reviewed patients with a full-filled data including the follow up-results of care. Patients with an age under 16, patients with cardiac arrest and death during initial resuscitation, and transfer-out at initial care were excluded. 95 patients were entitled our study. 11 patients (11.1%) were under-triage and 5 patients (5.1%) were over-triage. Multiple trauma, especially head trauma was related to mis-triage. Patients with required more than 2 therapeutic procedures were related to under-triage. Present manual for field triage was not sufficient for the detection of the severed-injured trauma patients. When we met the patients who required more than 2 therapeutic procedures during initial resuscitation, we should make an attention for detecting hidden injury of them for the proper response to the preventable death.