PP27 THE PERILOUS GULP

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INTRODUCTION: Cyanide is a potentially lethal tissue asphyxiant. Cyanide poisoning can occur following exposure to structural fires, industrial exposure, medical exposure, and ingestion of cyanide containing solutions.

CASE: A one-year and eight-month-old boy was brought to our emergency department on 31st January 2020, with history of ingestion of a silver polishing solution. The child was found alone in the kitchen by his grandmother, with a previously half-filled but now emptied bottle. Upon arrival at the Emergency Department, child was unresponsive, pupils were 4mm bilaterally but sluggish, normotensive but bradycardic. Subsequently child was intubated and was treated as accidental cyanide ingestion. Initial supportive treatments were started, including oral thiamine, oral cyanocobalamine, and exchange transfusion was done. IV hydroxycobalamine 750mg was only able to be given on 1st February. However, the child had developed toxic encephalopathy, multiorgan failure and expired on day 14 of admission.

RESULTS: Venous blood gas showed lactic acidosis with elevated anion gap. Serum cyanide was 1.73 mcg/ml. Full blood count showed thrombocytopenia with deranged coagulation profile, liver, and renal profiles. Brain Magnetic Resonance Imaging revealed acute toxic encephalopathy.

DISCUSSION: Diagnosis of cyanide poisoning might be difficult due to the lack of any specific toxidrome. In this case, the identification of solution was problematic since the bottle was not labeled. The child was treated for cyanide poisoning from the physician experience, a suggestive history, hemodynamic instability, and lactic acidosis. The serum cyanide level was outsourced to Department of Chemistry Malaysia in Petaling Jaya and was only available two weeks later. The delayed antidote administration was because it had to be obtained from Sarawak General Hospital in Kuching by flight.

CONCLUSION: Physicians need to have a high level of suspicion of cyanide poisoning for an unresponsive patient with potential access to cyanide. Other challenges faced in managing this case were the lack of a readily available confirmatory test and antidote at our center