Acute poisoning causing few to “fall flou”

HOSP #		WARD	Casualties
CONSULTANT	George van der Watt	DOB/AGE	26 & 50 y/o males

Abnormal Result

Urine toxicology screening / Urine organic acid analysis

Presenting Complaint

ESKOM load shedding resulted in failure of the power supply (including the emergency power generator) at a part of the hospital which included the routine toxicology screening lab at the Department of Pharmacology.

Two patient samples arrived at Red Cross Hospital IMD lab one Wednesday morning, brought personally by the Lab Manager of the Pharmacology Toxicology Department, requesting help to identify the cause of poisoning in two of six patients with alleged poisoning. At the time, the patients were both on ventilatory support in ICU due to depressed level of consciousness.

The repeated electricity power failures over a weekend, resulted in Toxicology’s state-of-the art tripple-quad tandem qTOF mass spectrometer to fail.

History

Six individuals were given a drink by a taxi driver in Landsdowne, Cape Town, on that Monday morning, all who collapsed few minutes later in the streets. Paramedics were on the scene soon and all affected patients were rushed to

respective hospitals. See more on the Daily Voice.

Examination

The two individuals from whom we obtained urine for analysis, both had similar signs:

GCS was apparently 4/15, requiring intubation and ventilation.

Pupils were not miotic nor midriatic and signs were not in keeping with organophosphate poisoning.

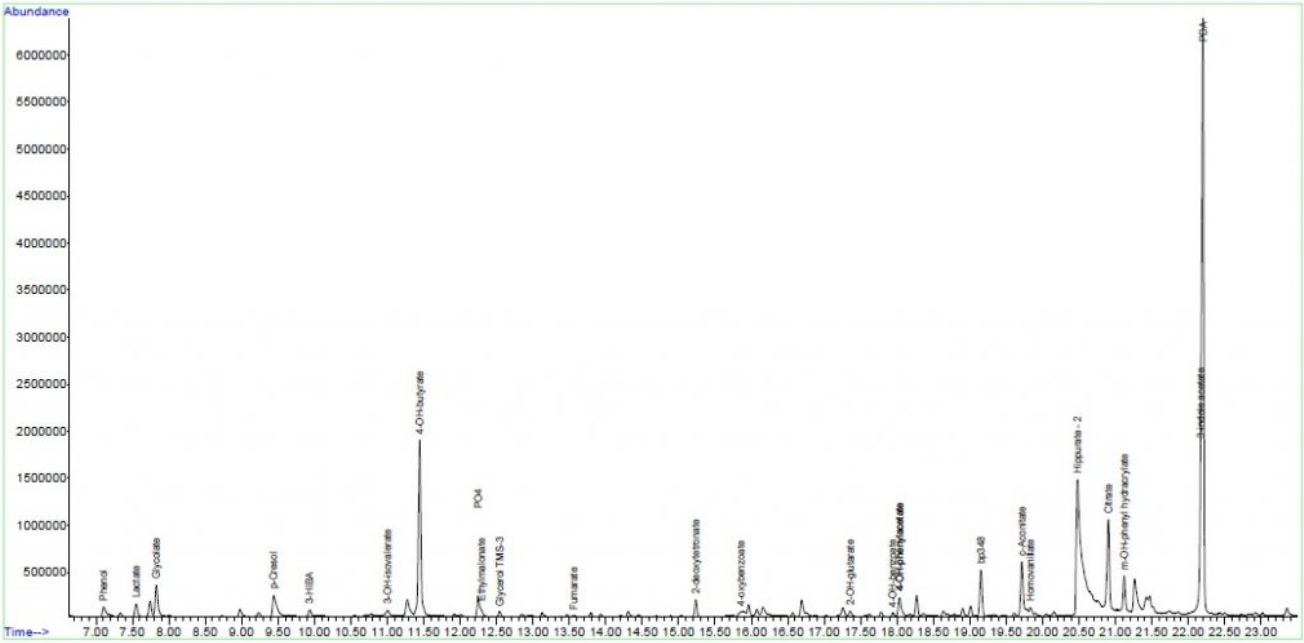
Laboratory Investigations

No other laboratory investigations were available at the time. In retrospect, one of the patient's results are available and serum electrolytes, liver enzymes, liver function and renal function tests were within normal range.

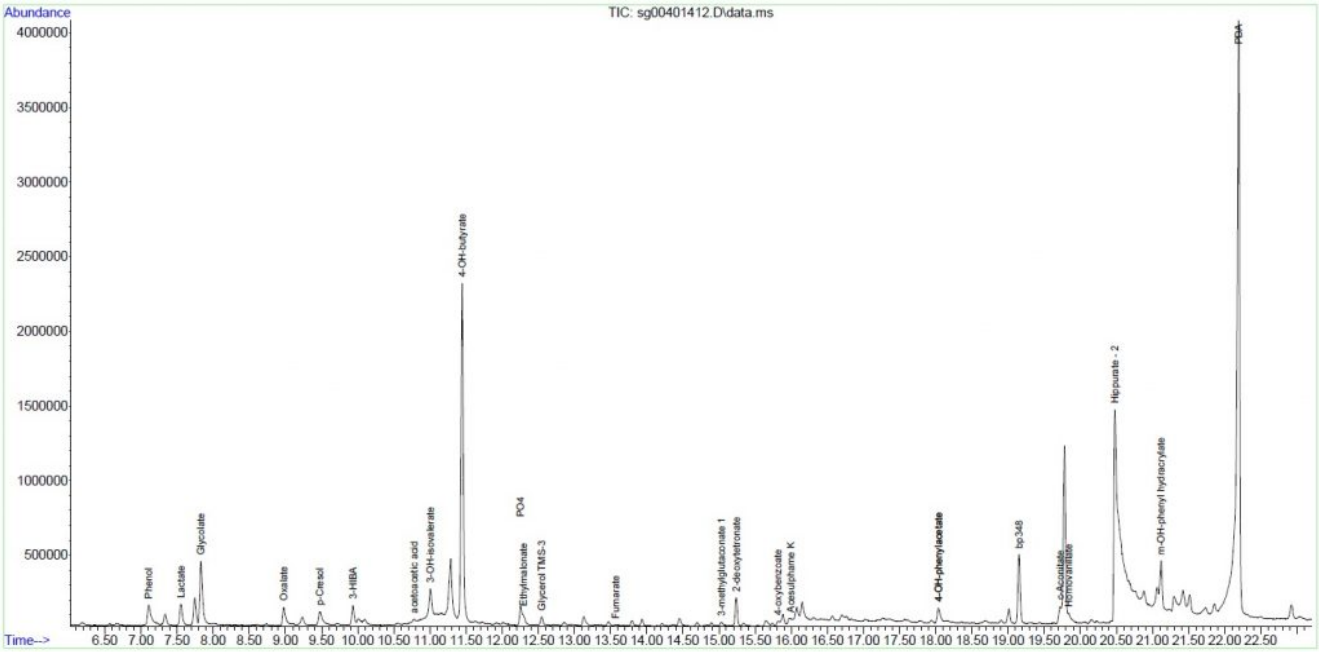
Other Investigations

Urine organic acid analysis by GC-MS were done by us that day and we could identify Gamma-hydroxybutyrate (GHB) with an accurate hit to a known library adequately. We also ran a control urine sample of myself to prove the absence thereof as a negative control.

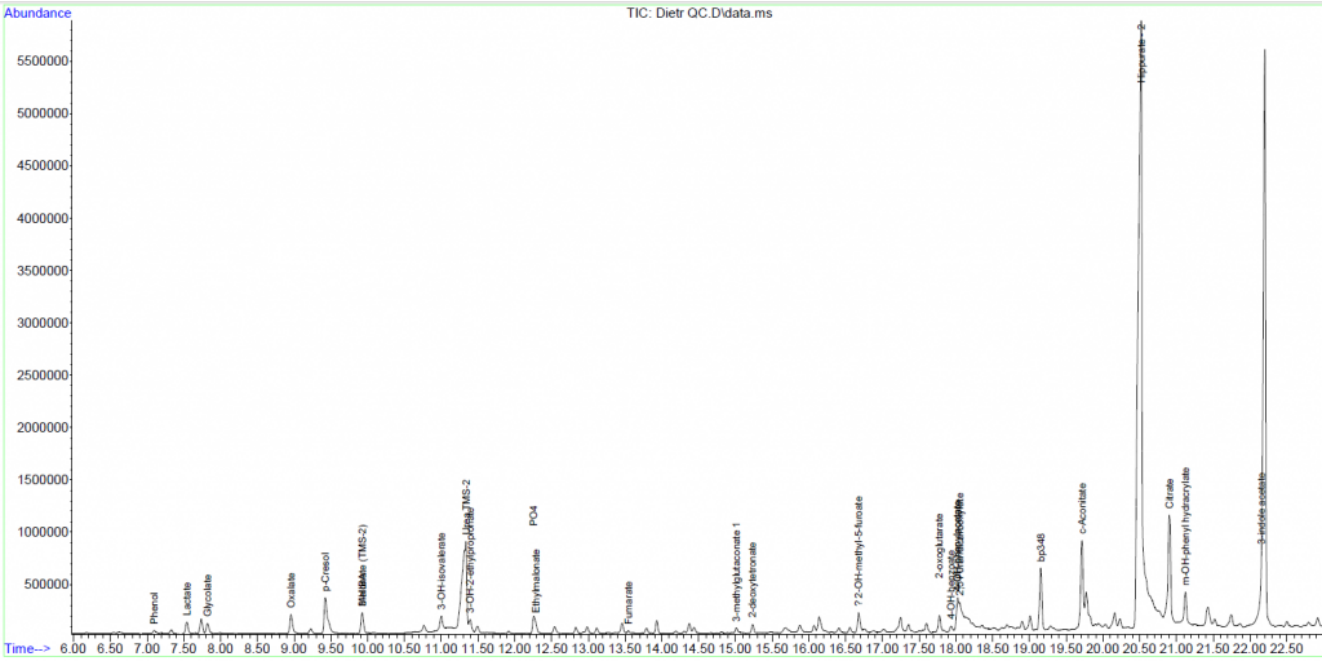
In the chromatograms below, note the height of the base peak, Pentadecanoic Acid (PDA) in relation to the peaks eluting at 11.45 minutes, 4-OH-butyrate, the analyte of interest. It can be seen that it is present in both the patient's samples and is absent in the control sample.



Patient 1 Chromatogram



Patient 2 Chromatogram



Negtive Control Chromatogram

Final Diagnosis

It was confirmed that both cases as analysed by us was in keeping with intoxication with 4-OH-butyrate (gammahydroxybutyrate; GHB).

Take Home Messages

We concluded that cases of gammahydroxybutyrate intoxication can be confirmed by urine GC-MS analysis at our IMD chemistry lab at Red Cross Children’s Hospital.

Gammahydroxybutyrate (GHB) has appeared to be quite a common (and perhaps re-emerging) drug in the Cape Town area. It can relatively easily be manufactured without sophisticated equipment and due to its ease of manufacture is not extensively made / traded by illicit drug traders.

GHB (an agonist of certain GABA receptors) can be manufactured relatively easily by addition of two ingredients, a prodrug gammabutyrolactone (GBL; a commercially available product) and an alkali hydroxide, such as sodium hydroxide to form GHB salt.

Other trade names of GHB include “Liquid Ecstasy”, “lollipops”, “Liquid X” or “Liquid E”.

See below a copy of the article as it appeared in the Daily Voice, a Cape Tonian newspaper:

TOXIC DOP POISONS 6

Group falls flou from 'a taxi man's drinks'

WHILE authorities are investigating an alleged poisoning incident in Lansdowne, a witness claims the six people who fell *flou* in the street on Monday were actually *dik gesuip*.

BY MONIQUE DUVAL
PICTURES: MONIQUE DUVAL AND SUPPLIED

Law Enforcement spokesperson, Wayne Dyason, says officers patrolling Wetton Road found three men and a woman passed out at a bus stop.

"They were receiving medical attention from paramedics on the scene and one of them was experiencing convulsions," Dyason says.

"While the paramedics were treating them, it was reported that another person was lying on the pavement in Walnut Road and another on the corner of St Joseph's and Wetton roads.

"All six were treated on scene and taken to hospital."

According to a police source, the group were taken to Somerset and Groote Schuur hospitals where they told detectives that a man in a taxi had given them drinks.

"They are job seekers who sit along the road waiting for someone to pick them up. All of those people in the hospital are from Philippi," says the source.

"When the detectives questioned them, they said a man in a taxi gave them the drinks that poisoned them, but when the detectives spoke to the doctor, they were told that it was a very strong mix of alcohol."

Determine

Police spokesperson, Colonel André Traut, confirmed: "No criminal case has been opened at this stage, however Lansdowne police will be looking into the matter to determine the circumstances."

However, when the *Daily Voice* visited the area yesterday, Alexis Teman, 45, said the group was *gesuip* after drinking a toxic cocktail.

The father from Samora Machel, who stands on Wetton Road looking for work, says he could not believe his eyes when he saw the people *kapping* om.

"That was not poison, they were drunk and they asked for that strong wine," he claims.

"The people at The Penn (nightclub) often give us food because we stand here the whole day waiting for work.

"After 11am, we all walked over and the first guy who fainted was in front of me in the line.

"They were giving us soup and there was a guy with this strong wine and the people said they were *babalas* and wanted wine also."

Alexis says he did not ask for *dop* as he doesn't drink.

"First the guy put in juice for them but then they started to get greedy and took shots," he says.

"When we came over the road, we just started seeing them all fall in the street.

"I was so shocked! It was horrible. They looked like they would die, I cannot believe they are alive. We heard it was a mix of brandy, whiskey and other stuff."

Daily Voice visited The Penn but a man, who identified himself as the owner, refused to comment.

Mayco member for Health, Zahid Badroodien, says they are investigating: "We do not want to speculate on the possible cause until blood tests or clinical samples have been completed and interviews with those affected have been conducted."

SHOCKED: Alexis Teman, 45

HOSPITALISED: Six people were found passed in street in Lansdowne