



Cyanide poisoning investigation, Terego District, Uganda, February 2023

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Cassava can contain high levels of cyanide which poses a serious health risk to people who consume it regularly without proper processing and preparation (2,3). Cassava cyanide poisoning is a major health concern in Uganda, where cassava is a staple crop for millions of people (4,5). Traditional processing of cassava in Uganda is unlikely to remove all the cyanide, which may be responsible for chronic toxicity associated with continued ingestion of cassava products (5). Exposure to low levels of cassava cyanide over a long period can result in weakness, and various symptoms including permanent paralysis (2).

On 8th February 2023, an alert of a community death and individuals presenting at different health centers with symptoms of suspected food poisoning was reported to the Arua Regional Emergency Operation Center (REOC). All the suspected cases came from Terego District, West Nile Region, Uganda. An investigation by the district rapid response team revealed that 19 suspects and 1 death (4yr/ female) consumed cassava flour they purchased from a local vendor on a market day, prepared, and shared it with their families.

We utilized the existing national sample transport hub system for transporting the samples.

The cassava flour sample was collected and transported on 13th of February and delivered in the testing DGAL laboratory on 14th February 2023. The sample was analyzed for contamination using the Codex (FAO) method and Total aflatoxin using Liquid chromatography–mass spectrometry technique.

The laboratory tests confirmed the presence of high cyanide content in the cassava flour sample: HCN 460.32mg/Kg, exceeding the maximum limit of 10mg/Kg. Through interviews, it was noted that, this is a recurrent issue.

The laboratory coordination was timely and appropriate, with sample collection, packaging, and dispatch to the testing laboratory being completed within 24 hours from 13th to 14th February 2023, and sample receipt to result dissemination occurring within 7 days on 17th February 2023.

From the laboratory perspective, we recommended routine testing of cassava samples from the region for cyanide. Regulations and policies should be established for safe cassava consumption.



References

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