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Title: Food Poisoning After Eating Spring Rolls Made With Flour Contaminated By Organophosphate Powder, Ho Municipliy, Volta Region, 2019

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Background: On 30th November 2019, there was a wedding reception in Ho and 3 people died of what appeared to be food poisoning; all reportedly had eaten spring rolls from what was served at the reception. Investigation was conducted to identify the cause of poisoning and recommend prevention measures.

Method: We defined a case as a resident of the community (all attendance at the wedding reception) with onset of 1 of the following from 24th November 2019 onwards: loss of consciousness, frothing of saliva, low blood pressure, and constricted pupils. We reviewed medical and police records and interviewed survivors, physicians, district health officials, and police officers for case finding. We collected implicated foods samples for laboratory testing.

Results: We identified 7 cases with 3 deaths (case-fatality ration= 43%) Clinical manifestations included mental confusion (100%), constricted pupils (43%), frothing of saliva (43%), and low blood pressure (43%). All 7 cases had illness onset between 1500 and 1700 hours on 30th November 2019, with a point-source exposure pattern. 86% (6/7) of the cases were men; the mean age was 24 (range: 20 – 32) years. All cases developed symptoms shortly after eating the spring rolls. The 3 deceased cases ate a whole spring rolls each; 3 of the cases who survived ate portions of the spring rolls each; 1 survived case tasted the spring roll flour only. Autopsy findings of the 3 deceased cases were consistent with organophosphate poisoning. Police investigations revealed that left-over flour from a previous wedding earlier in the year 2019 had been contaminated with organophosphate powder and later used to make the implicated spring rolls. Laboratory analysis of the flour and spring roll indicated organophosphate contamination.

Conclusion: this cluster of food poisoning was caused by eating spring rolls made with flour contaminated by organophosphate pesticides specifically Malathion. We recommended stricter control of pesticides in Ho Municipality, Volta Region and throughout Ghana.

Key Words: Food Poisoning, FDA, Volta region, Ghana