Example of Alert and Reporting System of Scopolamine Poisoning Among Parisian Cocaine Users at Regional, National and European Levels

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Introduction: In the literature, few intoxications are related to scopolamine due to its presence in cocaine, heroin or even in counterfeit Rohypnol® (flunitrazepam) tablets. Nonetheless, during summer 2016, several cases of non fatal intoxication appeared in the region of Paris.

Objectives: Demonstrate how clinical detection of rare toxic events are fostered by exchanges in close collaboration with different territorial level and improve the detection of short toxic epidemic.

Methods: Suspected cases of scopolamine poisoning notified to Parisian Addictovigilance Centre were reported. Information shared through different levels of the alert process contributed to strengthen their assessment.

Results: Seventeen cases of probable scopolamine poisoning among cocaine users were registered between the 6 and 24 of July. In the first 4 cases, toxicological analysis of blood samples were scopolamine positive, with high concentration between 7 ng/mL and 25 ng/mL (usual therapeutic range: 0.1 to 1.1 ng/mL). A collected sample of this cocaine powder had a purity of 23.2%, with 15.2% of scopolamine. Half-time of scopolamine is longer than half time of cocaine (3-hours versus 1-2Hours): this could explain why the observed effects lasted over 24H (n=8/17). Main clinical features were mydriasis (n=15/17), high blood pressure (n=12/17), tachycardia (n=13/17), behavioural disorder with agitation (n=13/17), hallucinations (n=5/17), and coma (n=8/17). The process of alerting have resumed in figure 1. This alert illustrates the information flow. Practitioner’s responsiveness and the extensive information sharing between regional to European level were congruent.

Figure 1: Process of Alerting in France

Conclusion: Adulterated street drugs can lead to short toxic epidemic which could be unnoticed. Emerging event should require careful assessment with linkage between risk assessors and risk managers.