



Pathology/Biology Section - 2013

G147 Postmortem Toxicological Review of Combined Drugs Toxicity Deaths Reported in the Republic of Ireland Involving the Detection of Bath Salts Headshop Products

Khalid Jaber, MD, Firebrigade Training Centre, Malahide Rd, Dublin, IRELAND*

The goal of this presentation is to share the Irish experience in identifying deaths caused by combined drug toxicity in which detection of headshop products, referred to as bath salts, has been identified.

This presentation will impact the forensic science community by sharing, for the first time, the Irish experience of chemical deaths caused by combined drugs toxicity that postmortem toxicological analysis detected as headshop products (drugs), referred to as bath salts. The human toxicology section of the state laboratory is a centralized toxicological analysis unit that handles all referred samples from the various coronial services operating in the Republic of Ireland.

Synthetic cathinones include drugs like mephedrone, MDPV, butylone, flephedrone, and methylone that form part of a larger group of illegal drugs encountered in Ireland and other countries as components of products sold in retail stores referred to as head shops.

In Ireland, prior to May/June 2011, a rapid growth of these commercial interests was noticed on the main streets in the capital of Dublin and in most other smaller cities and towns in Ireland. The public as well as the media have become alarmed with the proliferation of the head shop products. A national TV documentary program focusing on a downtown Dublin street recorded 18 customers that queued, over an interval of 15 minutes of filming, in front of a small hatch of one head shop. They were buying these products for cash. Ireland was experiencing a new epidemic of addiction craze of consumption of head shop products, which have been marketed as bath salts although marked "not for human consumption," with 24 hr availability and facility for home delivery to those requesting such service. These products for some time have been legally cleared by customs when imported by these business outlets. An owner who was interviewed articulated his position that he was selling bath salts and it was up to the buyers to use them the way they saw fit. For example, one gram of his bath salts could sell from 10 to 30 euros!

The consumers of these products (the customers of these shops) spanned a wide range of ages (technically, customers must be over 18 to buy anything from a head shop) and represented all social strata, both sexes, and marital status.

Users' clinical signs and symptoms such as hallucinations, anxiety panic attacks, and psychosis were increasingly observed and reported to health workers; the police force was monitoring the rise of this worrying trend. These drugs have become a convenient replacement to the hard drugs of abuse as consumers began to inject these drugs. In November 2009, the first fatality of combined drug toxicity that included mephedrone was strongly suspected initially and was subsequently confirmed in postmortem toxicological analysis. In February 2010, the Department of Health placed certain substances on sale in head shops under the control of the Misuse of Drugs Act 1977, paving the way for these bath salts products to be outlawed. In the same month, an arson fire totally destroyed a head shop in Dublin. In March 2010, two pipe bombs were discovered by employees of two head shops separately. The Army Bomb Disposal Unit removed the weapons and deemed them to have been two viable improvised explosive devices. The following month, a petrol bomb attack was carried out on a head shop in a seaside town north of Dublin, leading to fire breaking out.

In May 2010, the Irish government announced a criminal ban with immediate effect on a list of head shop-based drugs, making it illegal to trade in mephedrone, spice products, and substances that exert biological effect like cannabis, cocaine, and ecstasy.

One month later, the Minister for Justice published the New Criminal Law, The Psychoactive Substances Bill, which made it illegal to sell hallucinogenic products. The bill granted power to Garda Siochana to seek a court order to close head shops suspected of selling drug-like products; the owners of these premises were required to prove they are not involved in such activities.

The state laboratory identified 33 postmortem toxicological analyses that showed positive head shop synthetic cathinones over a three year period between November 1, 2009 and November 30, 2011. Five cases were identified prior to the New Psychoactive Substances Bill while four cases were identified in June 2010 and the rest afterward. These cases comprise twenty-six males and six females.

An account of these cases, discussion of this epidemic, and the effectiveness of the national measures taken is presented.

Toxicology, Headshop, Drugs