



D31 Autoerotic Deaths: A 25-Year Retrospective Epidemiological Study

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After attending this presentation, attendees will have a better understanding of the epidemiology of autoerotic deaths.

This presentation will impact the forensic science community by providing new insight into the incidence of autoerotic deaths.

Introduction: Autoerotic deaths have been defined as accidental deaths occurring during individual, usually solitary, sexual activity in which a device, apparatus, or prop employed to enhance the sexual stimulation of the deceased in some way caused unintentional death. It

is written in almost all papers on autoerotic deaths that autoerotic fatalities account for about 500 to 1,000 deaths per year in the United States. This highly cited number is now of general acceptance, and was generalized to estimate the number of cases in Canada as well. However, a closer look at the original reference reveals that contrary to the general belief, this incidence does not originate from an epidemiological study in United States, but from an estimation from unpublished data available from England and Canada. However, a Canadian study challenged this number in 2008 and demonstrated that the incidence was significantly lower in the province of Quebec. Presented here is a 25-year epidemiological study of autoerotic deaths in the province of Alberta, Canada.

Material and Methods: The Province of Alberta (Canada) is divided in two Offices of the Chief Medical Examiner, one in Edmonton and one in Calgary. The database of both offices was searched for the following keywords: sexual, autoerotic, sex, naked, penis, semen, breast, vagina, porn, pornography. These keywords were not only searched for in the cause of death but in all other parts of the file as well (for example, in the investigators summary and investigators notes). All non-suicidal hanging and asphyxial deaths were also reviewed.

Results: From 1985 to 2009, 38 cases of autoerotic deaths were found (incidence of 0.56 per million inhabitants per year). The number of cases per year varied from none to four (average 1.52 ± 1.08). Victims were all males, aged from 16 to 74 years (average 33 ± 12). Most victims were single. The vast majority of deaths were related to typical methods (36 cases, 95%). The most common method was hanging (28 cases, 74%). Atypical methods were encountered in 5% of cases: one case of electrocution combined with hanging, and one case of atypical asphyxia method by inverted suspension. The most common location the bodies were found was basement (34%), followed by bedroom (24%), and bathroom (13%). The majority of victims were not under the influence of ethanol or drugs when the accidental death occurred. In 23% of the victims, an acute ethanol intoxication above 80 mg/100 ml was found. Cannabis, methamphetamine, or cocaine was found in 13% of the victims. In 23 cases, the investigation established if the event occurred in the morning, afternoon, evening, or night. There was no clear evidence of a preferential time of day for these deaths. However, it seems that autoerotic deaths might be slightly more common during summer (37%). The geographic distribution of autoerotic deaths reveals a preferential distribution in big cities compared to rural areas: the incidence in Calgary was 0.76 per million inhabitants per year, compared to 0.57 in Edmonton, and only 0.44 in the rest of Alberta.

Discussion: The widely cited incidence of 500 to 1,000 autoerotic deaths per year in the United States is based on data from 1983. Considering that the population of United States in 1983 was of 226.5 millions, this incidence corresponds to 2.2 to 4.4 cases per million inhabitants per year. In 2010, the population of United States has increased to 309 million. Therefore, the incidence of 500 to 1,000 autoerotic deaths per year in the United States should be changed to 700 to 1,400 deaths per year considering the population increase. However, these numbers are largely overestimating the reality in Canada, and are probably overestimating the reality in United States as well. Epidemiological studies are needed to re-assess this estimate in United States. Further studies are needed to better assess the incidence of autoerotic deaths in different geographical and socio-economical areas. **Autoerotic Death, Autoerotic Asphyxia, Incidence**