



D8 Deaths Related to Epilepsy in Brazil From 2005 to 2009

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After attending this presentation, attendees will gain basic knowledge about epilepsy deaths and the profile of victims who die of epilepsy in developing countries, as well as forensic and legal problems posed by this type of death

This presentation will impact the forensic science community because the study of deaths due to epilepsy calls attention to this kind of death, to the profile of the victims in developing countries and also in how to direct the postmortem examination to make the correct diagnosis of the problem.

The occurrence of death due to epilepsy is an issue of great importance, due to its legal and forensic aspects, and should be analyzed on all relevant matters. The identification of the main factors involved in the deaths of people with epilepsy may provide information for public adoption of public remedial action and also for solving problems related to the forensic cause of death. Sudden death in epilepsy (SUDEP) is well known and attracts scientists in the search for the identification of control mechanisms for these types of deaths in Brazil; however, there are few studies dedicated to this purpose. Hence the importance of this presentation is to alert doctors and authorities about the profile of this population in Brazil and help in prevention of this type of death. This problem occurs in various parts of the world. As stated by Leestma, "in most locales in the United States, and likely in other developed countries, such deaths are usually not attended by a physician and are without detailed historical or medical information. They will usually be brought to the attention of a medical examiner or coroner, who is responsible for determining the cause and manner of death and generate a death certificate before the remains may be interred or otherwise disposed of." The goal of this retrospective and descriptive study is to make a statistical analysis of deaths due epilepsy in Brazil from 2005 to 2009, and to correlate age, sex, race, region of the country, and place of death. This will construct the profile of this population to assess possible factors that may impact public health policy and alert the medical examiners to at least suspect this type of cause of death. The data analyzed in this study were obtained by the Brazil Ministry of Health Department of Informatics (DATASUS), which provides information about the key health indicators, including information on vital statistic, at the national level. Deaths in Brazil for the last five years available in the DATASUS database were evaluated. All variables contained in it were incorporated into the study, including age (from zero to over 80-years-old), gender (female, male), race (Caucasian, black, brown, yellow, indigenous), region of Brazil (north, northeast, southeast, south, and Midwest) and place of death (hospital, other local health, home, street, other, or unknown). Nine thousand, three hundred, eighteen deaths due to epilepsy in Brazil between 2005 and 2009 were analyzed and represented a risk of death around 0.177 when compared with the total number of deaths in the country in the same period. The study consisted of 6,058 men, 3,219 women, and 41 whose data were not available. Approximately half of the deaths involved young adults between 20 and 49 (51.83%) of which the predominant age was between 40 and 49 (40.34%), followed by 30 and 39 years (34.8%). The Caucasian and African subjects predominated over other races at 46.51% and 36.62% respectively. The southeast region, the most populous in the country, as well as the northeast region accounted for the largest number of occurrences. There was a slightly higher prevalence of deaths in hospitals (46.6%) when compared to those which occurred at home (41.34%). The results of this study are consistent with others, especially regarding the subjects' age at the time of death and the predominance of males. Neither the exact description of the death or the characteristics of epilepsy in these subjects were available; however, the large number of events at home, age (young adults), and male predominance show that most of these deaths were due to SUDEP. Therefore, detailed analysis of deaths involving people with epilepsy is a necessity, given the large number of people affected by this disease.

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