2.4 Does Excited Delirium cause death, or does death cause Excited Delirium? A systematic review and statistical analysis of the world literature.
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Learning objectives:

At the end of the presentation, participants will be able to:
1. State the origin and present use of the term Excited Delirium (ExDS)
2. Describe the controversies surrounding the use of ExDS in death investigation
3. Explain the current state of scientific evidence concerning the use ExDS as a cause of death
4. Provide evidence-based recommendations for future practice in death investigation

Abstract

Excited Delirium Syndrome (ExDS) is a diagnostic term used to characterize a potentially fatal state of extreme agitation and delirium, often combined with aggressive behavior, intolerance to pain, extreme physical strength and endurance, and hyperthermia. There are no autopsy findings that indicate ExDS, and intoxicant levels in the bodily fluids are typically at a recreational level. The concept of delirium leading to sudden death of a stimulant-intoxicated individual was first described in 1985 and has subsequently been modified by to indicate an invariably fatal condition that is characterized by the acute onset of delirium, combative and violent behavior, and sudden cardiac death due to an inexorable physiologic chain reaction. When named as a primary cause of death, ExDS is a controversial diagnosis when there is also a history of restraint at the time of death. This is because the characteristics that define ExDS are also highly likely to trigger the use of force and forceful restraint by law enforcement, and restraint by itself can be associated with an increased risk of death due to positional or compressive asphyxia, which is also a cause of death that is often inferred by history, rather than observed via pathological findings.
A term that is used synonymously in the literature for ExDS is “agitated delirium,” or “agitated delirium syndrome” (AgDS). The sole difference between AgDS and ExDS is that the post-mortem/forensic pathology literature almost exclusively uses ExDS (and all cases are fatalities), whereas the clinical medical literature uses both ExDS and AgDS to describe the same pre-mortem patient characteristics and includes non-lethal as well as lethal cases. There are critical questions surrounding the continued use of the diagnosis of ExDS versus AgDS that require further exploration. The first question concerns the potentially confounding effect that restraint has on the risk of death among ExDS/AgDS cases. The second question is more nuanced, but just as critical, which is whether there are characteristics of ExDS that distinguish it from AgDS, aside from the risk of death. If it is found that the only apparent explanation for a diagnosis of ExDS versus AgDS is that the victim died and was restrained, then the previously advanced theory that a diagnosis of ExDS is confounded by excessive use of force by law enforcement would be supported by the analysis. In the present analysis these questions are addressed via presentation of the results of a systematic review of the world literature, and statistical analysis of the results of pooled data regarding ExDS and AgDS characteristics and lethality. The resulting analysis provides strong evidence that the use of the term “excited delirium” as a cause of death should be abandoned, as there is no scientific evidence to support the practice, and plentiful evidence that the term is no more than a proxy for restraint related death.