



## H140 An Accidental Asphyxiation by Christmas Lights in a Patient With Schizoaffective Disorder

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**Learning Overview:** After attending this presentation, attendees will have reviewed an unusual case of accidental asphyxiation with an atypical ligature and familiarized themselves with the impact of psychiatric illness on mortality, specifically regarding accidental and suicidal deaths.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community in terms of recognition of an unusual ligature not previously reported in asphyxial death, differentiating accidental from suicidal death in persons with psychiatric illness, and evaluating the role of psychiatric illness in a shortened life span and in accidental asphyxia.

Patients with psychiatric illnesses have been shown to have shortened life expectancy and increased rates of mortality from all causes of death. Accidental and suicidal deaths are significantly increased in psychiatric patients, especially those with schizophrenia, when compared to the background population.<sup>1</sup> An illustrative case report is presented.

A 62-year-old woman with multiple psychiatric diagnoses, including schizoaffective and substance use disorders, was found dead by her brother in midsummer in her locked trailer home. Her body was in a condition of moderately advanced decomposition, consistent with the interval observed (i.e., last seen alive five days earlier). Medical and social history included repeated admissions to local inpatient psychiatric wards; she had been the subject of numerous calls to police regarding aggressive or irrational behavior when home. Her brother was her primary caretaker. At the scene, the interior temperature was measured at 105°F. Christmas lights lined the bedroom ceiling, on three of the four walls. The decedent's body was supine on the floor near the bed, entangled in Christmas lights around the neck and torso.

At autopsy, external examination was notable for dried brown-black fluid emanating across the cheeks from each corner of the mouth. The Christmas lights were deeply embedded horizontally around the neck, crossing at the left side of the neck without a knot. One string passed around her upper arm and shoulder; the other string wrapped twice around her torso. After removal of the Christmas lights, a corresponding ligature mark was identified in the exposed dermis; internal examination identified a linear pale area on the undersurface of the platysma muscle and across the superficial strap muscles, without other evidence of injury. Identifiable natural disease included emphysema, atherosclerosis, and remote tubal ligation. Death was attributed to accidental asphyxia from a Christmas light ligature. The contribution of heat was unclear, but likely not significant in the asphyxia. As it seemed likely that she should have been able to untangle the Christmas lights if free of mental illness, schizoaffective disorder was deemed a contributing cause.

Psychiatric illnesses are recognized to place patients at a higher risk of accidental death, as well as suicide and natural death. The literature examining the mortality gap between decedents with and without psychiatric illness has given rise to a number of theories for the discrepancy, including negative side effects of antipsychotic medications, increased tobacco use, unhealthy lifestyle, delayed diagnosis and suboptimal treatment of physical illness, and increased risk of unnatural death.<sup>1</sup> Internet and medical library searches have not identified any previous case reports of intentional or accidental asphyxiation via Christmas light ligature. A case of accidental asphyxial death has been reported in an inebriated 67-year-old man without psychiatric history, who was found dead in a sitting position, with the collar of his sweater hanging off the brake handle of a motorcycle.<sup>2</sup> A schizophrenic woman in her sixties who was judged to have asphyxiated herself on an intraoral handkerchief may have been responding to internal stimuli secondary to her psychiatric illness (suicide) or may have accidentally blocked her airway while attempting to stop the bleeding from a recently avulsed canine tooth.<sup>3</sup> In either scenario, her psychiatric illness was relevant to death. This case report identifies another unusual mechanism of accidental asphyxial death in a woman with psychiatric illness.

### Reference(s):

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2. Nurhantari, Y., Asano, M., Nushida, H., Nagasaki, Y., Kudo, R., Nakagawa, K., and Ueno, Y. (2002). Accidental hanging by a sweater: An unusual case. *The American Journal of Forensic Medicine and Pathology*, 23(2), 199-201.
3. De Donno, A., Marrone, M., Santoro, V., Ostuni, A., Cassano, A., Grattagliano, I., and Introna, F. (2017). A singular case of asphyxia by choking on a handkerchief: Accidental event or suicide to "shut-up" spirits. *La Clinica Terapeutica*, 168(5), e293-e296.

### Asphyxiation, Psychiatric Illness, Christmas Lights