Frequency of signs of excited delirium syndrome in subjects undergoing police use of force: descriptive evaluation of a prospective, consecutive cohort

Author(s)
Hall CA, Kader AS, McHale AMD et al.
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Abstract

There has, to date, been no prospective description of the frequency with which police officers encounter individuals who display signs of excited delirium syndrome (ExDS). The ability to document the relationship between signs of excited delirium and subject outcomes and then determine the underlying pathophysiology that results in morbidity and mortality is necessary in order to determine the case definition for ExDS in live individuals. We prospectively evaluated the frequency of signs of ExDS in a cohort of consecutive subjects undergoing use of force by law enforcement officers (LEOs) and determined the frequency with which those features were encountered alone and in combination. Data were collected prospectively for all subjects undergoing use of force (UOF) by LEOs in a single police agency from August 2006 until August 2009. Ten previously published signs of ExDS were prospectively recorded by officers: pain tolerance, constant/near constant physical activity, not responding to police presence, superhuman strength, rapid breathing, not tiring despite heavy physical exertion, naked/inappropriately clothed, sweating profusely, hot to the touch, and attraction to/destruction of glass/reflective surfaces. UOF occurred in 1269 of 1.56 million police public interactions (0.08%, 95% CI 0.08, 0.086). Of subjects undergoing police use of force, 1101/1269 or 86.8% (95% CI 84.8%, 88.6%) were assessed as having effects of emotional disturbance, drugs, alcohol or a combination of these comorbidities at the scene at the time of the UOF and 837/1269 or 66% (95% CI 63.3, 68.6) were violent at the time of the UOF. Excluding violence, 655/1269 (51.6% 95% CI 48.8, 54.4) had no signs of ExDS at the time of UOF and another 405/1269 (31.9% 95% CI 29.4, 34.6%)) had only one or two signs of ExDS at the time of UOF. The remaining 209/1269 (16.5%, 95% CI 14.5, 18.6) had 3 or more concomitant signs of ExDS at the time of UOF. One person died in our cohort who was experiencing 10 concomitant features of ExDS at the time of the UOF event. With only one death in our 3 year prospective cohort, we cannot comment on causality or correlation between number of Excited Delirium signs and mortality. Further study must be undertaken to determine whether correlation exists between higher numbers of ExDS signs and physiologic measures of acute underlying pathology in live subjects.ConclusionsLaw enforcement officers and other prehospital care providers can recognize and describe symptoms of ExDS in the field at the time of interaction. Even though police use of

force is rare over 15%, or approximately 1 in 6, of individuals undergoing police UoF have 3 or more concomitant signs of Excited Delirium at the time of the UoF event. The single death in our cohort occurred in an individual with 10 concomitant signs of ExDS. Future work including further clinical outcome data will determine whether higher numbers of concomitant signs of ExDS predicts subject morbidity or mortality and whether any specific symptoms or symptom cluster is associated with death. If so, a case definition will be able to be fully described.

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