The Role of Tasers in Police Restraint-Related Death

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Background

• The Taser is a small, hand-held, electrical immobilization device delivering 25,000-50,000 volts of electricity and creating brief paralysis. Widespread use of such "less-lethal" weapons are increasingly used by police forces throughout the country.

• Recent media attention on deaths temporally related to Tasers have raised questions of their safety and what role they may play in restraint-related death.

• Previously documented common causes of restraint-related death include positional asphyxia and excited delirium.

Methods

• Descriptive study of deaths occurring in police custody and associated with Taser use between January 2001 and January 2005.

• Cases were identified through Google search; letters were sent to the respective coroners requesting autopsy reports.

• Inclusion criteria included an accessible, complete autopsy report where death occurred in association with Taser use. Exclusion criteria included an obvious, alternate proximal cause of death (e.g., significant head injury) or a death not temporally related (> 1 hour from Taser injury).

• Data were analyzed for demographic and pre-existing cardiac disease patterns, position during restraint, presence of excited delirium, injury patterns, reported cause of death, and toxicology findings.

Table 1 - Cardiac Disease in the Study Population

Coronary Artery Disease (n=5)	16.7%
Cardiomyopathy (n=5)	16.7%
Both (n=6)	20.0%
Total	53.3%

Table 2 - Toxicology - Stimulants

Cocaine (n=13)	43.3%
Methamphetamine (n=3)	10.0%
Both (n=3)	10.0%
Total	63.3%

Table 3 - Excited Delirium Diagnosis

Yes (n=23)	76.6%
No (n=7)	23.4%

Table 4 - Cause of Death per Coroner

Stimulant Intoxication (n=12)	40.0%
Cardiac arrest (n=11)	36.7%
Excited Delirium (n=3)	10.0%
Positional Asphyxia (n=2)	6.7%
Acute CHF (n=1)	3.3%
Undetermined (n=1)	3.3%

Results

• Autopsy reports for 41 of 75 identified cases (55%) of Taser-related deaths were received; of these, 11 (27%) were excluded for obvious alternate causes of death or a greater than one hour period from Taser injury to death, leaving 30 cases.

• The mean patient age was 35.8 with a range of 18-50. All patients were male. Sixteen (53%) were white; 10 (33.3%) were black; and 4 (13%) were Hispanic.

• Tables 1-4 show cardiac disease, toxicology findings, presence of excited delirium, and documented cause of death.

• Only 13 (46%) autopsies mentioned restraint: of those, one involved prone restraint and two used a "choke hold"; the rest involved cuffs only.

• The mean number of Taser injuries was three with a range of two to eight; 26 individuals (87%) sustained injuries on the torso.

Conclusions

• Taser-related deaths appear to occur in situations similar to other police restraint-related deaths.

• It remains unclear if the physiologic states associated with stimulant toxicity and excited delirium may increase cardiac muscle excitability and make Taser discharge more likely to induce fatal arrhythmias.