K28 She "Lost that Lovin' Feelin' " in the Arizona Dust: Angry Teen on Alcohol, Cannabis and Cocaine

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After attending this presentation, attendees will be exposed to a Case Study involving interpretive toxicology and drug impaired driving. This case provides valuable discussion material as it lacks many of the factors that would make for an "ideal" DUID case; thus forcing a discussion of how real-life drugged driving interpretations may be handled. Drug effects, DRE evidence, analytical issues, case strengths, weaknesses and summary statements will be covered.

This presentation will impact the forensic community and/or humanity by addressing the difficult challenges associated with drugged driving interpretations. Although many forensic toxicologists are asked to provide these interpretations and related expert testimony, they are rarely presented to colleagues in this type of case study format. Utilizing a detailed Case Study model as presented here, is an excellent way to share knowledge and promote discussion regarding challenging drugged driving interpretations.

Ideal drug-impaired driving cases include significant driving behavior, a DRE evaluation, psychoactive parent drug(s) quantitated in blood obtained close to the time of driving that corroborate the DRE opinion, and driver admissions supporting impairment. This case was *not* ideal as it lacked much of the information allowing an interpretive analysis of driving impairment; thus, it *was* a typical DUID case. A 16-year-old female presented with qualitative blood confirmations of Benzoylecgonine (BE), Carboxy-THC and a low alcohol concentration (0.015g/100mL), obtained two hours and 32 minutes after significant driving behavior resulting in a fatal collision causing the death of a seven-year-old child in a second vehicle. The collision occurred on the Tohono Oodham Reservation at approximately 9:41 pm as the teen drove with her boyfriend, and his two nephews (ages 3 and 7) in the back. An argument ensued resulting in her holding onto his shirt to restrain him as he tried to exit the moving vehicle; the 3-year-old was crying to leave. She then ran a stop sign, making a left turn into the opposing traffic lane and colliding nearly head-on with the second vehicle. She had the moderate odor of an alcoholic beverage on her breath, slurred speech and red bloodshot eyes. Confirmatory blood cutoffs for Cocaine/BE and THC/C-THC were 50ng/mL and 2ng/mL respectively, thus parent drugs may have gone undetected. Later additional quantitative analysis of Cocaine and THC was precluded by sample size and consideration of non-enzymatic hydrolysis of Cocaine during extended refrigerated storage. Alcohol concentration was too low to provide extrapolation evidence. No DRE was available. *Interpretation*: BE is detectable in blood for ~ 48 hours post ingestion; blood BE indicates that Cocaine was present at the time of, or prior to, the blood draw. Duration of effects for Cocaine is 2-4 hours and is dose dependent. Effects consistent with Cocaine influence were: self-absorbed; inattentive; decreased divided attention and increased risk taking. Cocaethylene, although not tested for, is a possible additional contributor to driving impairment. Carboxy-THC detection in blood is highly dependent upon dose and frequency of use; blood Carboxy-THC indicates that THC was present at the time of, or prior to, the blood draw. Duration of effects for THC is 3-6 hours with some complex divided attention tasks up to 24 hrs. Effects consistent with THC influence were: bloodshot eyes; decreased divided attention; difficultly thinking, problemsolving and processing information; decreased car handling performance; slow reaction times; decreased perceptual functions and significantly greater effects when combined with alcohol. The absence of Cocaine and THC in this case does not rule out their presence at the time of driving or sampling, or potential dysphoric effects of cocaine. Driver is a minor, with limited driving experience, thus drug-impaired driving would likely occur at a reduced threshold than for a more experienced driver. *Strengths*: inattentive, inexperienced driving resulting in a fatal collision; admission of recent prior alcohol use; confirmation of polydrug metabolites in blood that could only come from prior use of potentially impairing and illicit drugs; documented poor judgment, decreased divided attention and increased risk taking. *Weaknesses*: driving distractions; absence of psychoactive drug(s); absence of DRE; minimal documentation of drug impairment at scene. *Summary*: focus on driver's diminished capacity to operate motor vehicle safely; includes her inability to focus on the complex task of driving and not become overly distracted by quarrels, etc. Her recent use of cocaine, alcohol and probable cannabis greatly increase the likelihood of her being a less competent and safe driver.

Cannabis, Cocaine, Drugged Driving

 ** Presenting Author*