



OFFICE OF THE DISTRICT MEDICAL EXAMINER
DISTRICT 15 – STATE OF FLORIDA
PALM BEACH COUNTY
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NAME: MCCARVER, DALLAS

CASE NUMBER: 17-1423

DATE OF DEATH: August 22, 2017

AGE: 26

SEX: M

RACE: W

DATE OF AUTOPSY: August 23, 2017 / 1050 hours

AUTOPSY FINDINGS:

1. Severe cardiomegaly (833 gram heart) with concentric left ventricular hypertrophy
2. Coronary artery atherosclerosis (severe in left anterior descending; moderate in right coronary)
3. Heavy lungs (617 grams right; 619 grams left) without hyperinflation or mucus plugging
4. Hepatomegaly (4,593 gram liver)
5. Minimal nephrosclerosis, and hypertrophy of kidneys (456 gram right; 503 gram left)
6. Papillary thyroid carcinoma (non-contributory)

CAUSE OF DEATH: Severe Concentric Left Ventricular Hypertrophy with Coronary Artery Atherosclerosis

CONTRIBUTING CONDITIONS: Chronic Use of Exogenous Steroid and Non-Steroid Hormones

MANNER OF DEATH: Natural

OPINION: Mr. McCarver was a 26 year old body builder with a medical history including dyslipidemia (low HDL, elevated LDL), elevated aminotransferases, and a chronic cough with some episodes of associated shortness of breath. Mr. McCarver had a history of using non-prescription exogenous steroid and non-steroid hormones. He also had a reported family history of early-onset atherosclerosis and hypertension. He collapsed in March 2017 at a competition, during a period of ongoing respiratory symptoms. During a follow-up evaluation, an abnormal electrocardiograph met minimal voltage criteria for left ventricular hypertrophy.

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Mr. McCarver was in his usual state of health on August 21, 2017, but was found unresponsive at home less than one hour after he was last seen alive. Paramedics responded and found him to be cyanotic and without vital signs. Advanced cardiac life support measures were initiated. He was transported to the hospital, and despite further efforts, death was pronounced shortly after 0100 hours on August 22, 2017.

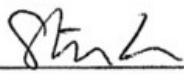
At autopsy, Mr. McCarver had severe cardiomegaly and concentric left ventricular hypertrophy, moderate to severe coronary artery atherosclerosis, hepatomegaly, hypertrophy of the kidneys, and striae on thoracic skin. There were no features of congestive heart failure. He also had papillary thyroid carcinoma. Mr. McCarver's urine was tested for anabolic steroids, and was positive for trenbolone metabolite (an anabolic androgenic steroid listed in Schedule III of the Controlled Substances Act). His testosterone to epitestosterone ratio was elevated above normal (based on criteria recommended by the World Anti-Doping Agency).

Use of anabolic-androgenic steroids is associated with greater heart weights, greater cardiac mass, increased left ventricular wall thickness/left ventricular hypertrophy, cardiomyopathy, and hyperlipidemia with coronary artery atherosclerosis. In some studies, they are also associated with hypertension, changes in vascular integrity and function, and conduction abnormalities such as lethal arrhythmias.

Mr. McCarver's death occurred after an unwitnessed acute cardiac event, and is due to his predisposing factors of severe concentric left ventricular hypertrophy with coronary artery atherosclerosis in the setting of chronic use of exogenous steroid and non-steroid hormones. There is significant overlap in features related to naturally-occurring and/or familial cardiovascular disease and those resulting from chronic use of exogenous hormones, and these factors are best viewed as synergistic contributors to Mr. McCarver's premature death.

References:

1. Achar S, Rostamian A, Narayan SM. Cardiac and metabolic effects of anabolic-androgenic steroid abuse on lipids, blood pressure, left ventricular dimensions, and rhythm. *Am J Cardiol.* 2010 September 15;106(6):893-901.
2. Baggish AL, Weiner RB, Kanayama G, Hudson JI, Lu MT, Hoffman U, Pope HG Jr. Cardiovascular toxicity of illicit anabolic-androgenic steroid use. *Circulation.* 2017;135(21):1991-2002.
3. Frati P, Busardo FP, Cipolloni L, De Dominicis E, Fineschi V. Anabolic androgenic steroid related deaths: autptic, histopathological and toxicological findings. *Current Neuropharmacology.* 2015;13:146-159.
4. Kishner S et al. Anabolic steroid use and abuse. <http://emedicine.medscape.com/article/128655>. Updated May 27, 2015 (accessed September 27, 2017).
5. Pope HG Jr, Wood RI, Rogol A, Nyberg F, Bowers L, Bhasin S. Adverse health consequences of performance-enhancing drugs: an endocrine society scientific statement. *Endocr Rev.* 2014 Jun;35(3):341-375. [PMCID: PMC4026349]
6. US Department of Justice Drug Enforcement Administration Diversion Control Division. Steroid abuse by law enforcement personnel, a guide for understanding the dangers of anabolic steroids. March 2004 (accessed October 30, 2017). <https://www.deadiversion.usdoj.gov/pubs/brochures/steroids/lawenforcement>.
7. Van de Kerkhof DH, de Boer D, Thijssen JHH, Maes RAA. Evaluation of testosterone/epitestosterone ratio influential factors as determined in doping analysis. *Journal of Analytical Toxicology.* 2000;24:102-115.



Stacey Simons, M.D.
Associate Medical Examiner
Date Signed: 11/15/2017

SS



Palm Beach County
Medical Examiner's Office

Name: Dallas McCarver

Case Number: 17-1423

Notified By: Detective Lazarus Kimsal

Agency: Boca Raton Police Department

Date Notified: 08-22-2017

Prepared By: Heron Ruiz, Forensic Investigator

Agency Case #: 17-011761

Time Notified: 0200

I received a phone call from a Palm Beach County Sheriff's Office dispatcher on Tuesday, August 22, 2017 at about 2:00 a.m., asking me to call Detective Lazarus Kimsal from the Boca Raton Police Department.

I called Detective Kimsal at the phone number provided to me. He said that he called the Palm Beach County Medical Examiner's Office to report the death of a 26 year old white male named Dallas McCarver (DOB: 04-09-1991), who was visually identified by a friend and a Florida driver's license.

Detective Kimsal reported that his preliminary investigation revealed that the decedent is a well-known body builder and has competed professionally for several years. The decedent is reported to have a history of long-term muscle enhancement supplements (steroids) mixed with Insulin and other growth hormone supplements. The decedent's friend reported that he last saw the decedent alive the previous night at about 10:30 p.m., when he, himself, left the apartment to go to the gym. He left the decedent cooking dinner and appearing in his usual condition. He returned to the apartment at about midnight at which time he found the decedent unresponsive on the living room floor with food scattered around the area. Medics from the Boca Raton Fire Rescue responded to the scene where they found the decedent unresponsive. The medics initiated resuscitative efforts and transported him to the Emergency Room at Delray Medical Center where Dr. Brian Ackerman pronounced his death at 1:03 a.m.

The decedent collapsed while at a body building competition in March 2017. The decedent went to West Boca Medical Center for an examination after returning to Florida following the near collapse on stage. The decedent underwent some tests but never returned to a doctor for follow up even though it was suggested.

Detective Kimsal reported that multiple medications and muscle enhancement medications were found at the scene. There was nothing on the body or at the scene to suggest foul play. He visually examined the body at the hospital. He reported that the decedent was extremely muscular and had a very large build. He did not see any obvious injuries. He said that he would ensure that the decedent's mother is notified of the death.

I dispatched Elite Body Removal Service to the hospital to retrieve the body and the accompanying medical records.

The hospital medical records state that the decedent was received at the hospital in full cardiac arrest. The decedent is reported to have a history of injecting insulin even though he is not diabetic and uses numerous steroids. The decedent did not respond to any treatment and was ultimately pronounced dead.

I talked to mother later in the day. She reported that her son suffered from child hood asthma but that he seemed to have grown out of it. She acknowledged his steroid use and questioned whether this is what caused his death. She acknowledged that her son's father and his family had a history of heart disease related deaths.

I requested a copy of the decedent's medical records from West Boca Medical Center from his visit in March 2017. I received the medical records later in the day, August 22, 2017. The medical records state that the decedent was seen in the ER on March 20, 2017. He is reported to have walked into the hospital with complaints of a chronic cough and difficulty breathing. The decedent reported that he'd been sick with an upper respiratory infection for the past month. He apparently did not remember passing out during his bodybuilding competition a week earlier. The decedent denied any actual medical history other than childhood asthma, which he outgrew and a previous shoulder surgery. The decedent was treated with oxygen and steroids and reported feeling better. He was able to walk out of the hospital on his own and stated that he would follow up with a Cardiologist.

The decedent also saw Dr. Martin Bloom during this time. I requested a copy of the medical records from Dr. Bloom's Office and also medical records from Jackson Clinic in Jackson Tennessee (previous medical records dating back to before 2015) which is included in the Palm Beach County Medical Examiner's case file.

Nothing Further