NAEMSP: EMS Should Not Administer Sedation at Police Request

BY RUTH SORELLE, MPH

Willard Truckenmiller went into cardiac arrest twice after the Lee County EMS injected him with 500 mg of ketamine for what was reported as alcohol-induced excited delirium. The medical examiner of that Florida county ruled that he died of a brain injury caused by oxygen deprivation. (Naples Daily News. Dec. 14, 2016; http://bit.ly/3t1RIKA.)

James Britt Jr. died after being injected with ketamine by Charleston County EMS, and his death was ruled a homicide by the South Carolina coroner who blamed “restraint asphyxia and the toxic effects of ketamine.” (WCSC. Nov 23, 2020; http://bit.ly/3a4WJcN.)

Most notably, ketamine was linked to the death of Elijah McClain in Aurora, CO, after police asked medics to sedate him. They administered 500 mg of the drug, and Mr. McClain suffered cardiac arrest in route to the hospital. The 23-year-old was declared brain dead days later. (Jan. 8, 2021; https://dpo.st/2YbuVhq.)

His family filed a civil rights lawsuit charging that Aurora and its first responders have a “longstanding pattern of brutal and racist policing.” (The Sentinel. Aug. 11, 2020; http://bit.ly/2YoJZZd.) “Elijah was listening to music, enjoying the short walk home from the corner store with some iced tea when Aurora police officers grabbed, tackled, and assaulted him,” the suit filed in U.S. District Court reads. “…Aurora police officers, on a regular basis, [use] elevated and unjustified levels of force against Black people.”

Body camera footage of another suspect detained by Aurora police shows a police officer telling medics, “Let’s give him some juice to go to sleep,” and Aurora Fire

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Long-Haul COVID: A Contested Illness is Born

BY DUSTIN BALLARD, MD

I was introduced to the concept of contested illness more than a decade ago. A sinewy young man was convinced that microscopic bugs were crawling over and under his skin. His arms and legs were covered with excoriated sores and fingernail-induced streaks of scarlet. I inspected him from head to toe and couldn’t find evidence of any parasites.

Then he handed me an envelope and asked me to look inside. There were six pieces of tape spattered with blueish specks. These, he said, were the bugs that were spinning tortuous fibers. I thought he had delusional parasitosis. He insisted he had Morgellons disease. This is a contested illness. And contested illnesses, like contested elections, raise hackles.

To better understand contested illnesses, I talked with H. Gilbert Welch, MD, MPH, a senior investigator with the Center for Surgery and Public Health at Brigham and Women’s Hospital who has written extensively about medicalization. “Everyday experiences get turned into diseases,” he said. “The definitions of what (and who) is normal get narrowed. ... We doctors feel increasingly compelled to look hard for things to be wrong in those who feel well.”

Sometimes, those answers are not forthcoming, which leads to contention with patients and the patient advocacy groups representing them, some of whom are indeed suffering. Along with Morgellons, other contested illnesses include myalgic encephalomyelitis/chronic fatigue syndrome and chronic Lyme disease.

Long-Haul Symptoms

We seem poised for an outbreak of contested illness, and may, in fact, be witnessing the early days of the largest and most significant contested illness surge in modern history: long-haul COVID. Many patients recovering from COVID-19 have persistent symptoms for weeks to months after the illness. Some have a clear physiological basis linked to inflammation and endothelial disruption. Others do not. It may be just a matter of time before the ED surge of acutely ill COVID patients transforms into a chronic and constant stream of those with post-COVID symptomology. Some of it will be real, some of it will be subjective, and some of it may be contested.

We know that subacute complications of COVID-19 include pulmonary embolism, acute myocardial infarction, and myocarditis. Numerous long-haul symptoms have been reported, including fatigue, insomnia, anxiety, depression, and functional restrictions. One of the most common is brain fog. One editorial profiled such a patient, a 26-year-old teacher who described it like this: “My chest hurts and head pounds. The body aches and heart races. I can hardly move, it’s extreme fatigue. Brain’s in a fog, can’t remember the name of my dog. Lost my sleep and my appetite. Feet are tingling and ears are ringing. It’s the Long-Haul COVID.” (Neurology. 2020;95[13]; http://bit.ly/3qJUSks.)

Brain fog is something we have all experienced, whether in the morning after a night shift or the week after daylight saving time begins. With long-haul COVID, brain fog is a common and aggravating symptom.

A survey published last year by the Indiana University School of Medicine and Survivor Corps, a grassroots COVID-19 group, found that fatigue was the most common of the top 50 symptoms experienced by more than 1500 long-haulers. (July 25, 2020; https://bit.ly/2NL5x6A.) The top 10 included difficulty concentrating or focusing, difficulty sleeping, anxiety, and memory problems. That sounds like a recipe for brain fog.

Link to Parkinson’s?

Avindra Nath, MD, the clinical director of the National Institute of Neurological Diseases and Stroke at the National Institutes of Health and the author of the Neurology editorial, told me the possible causes of brain fog and other symptoms may be persistent inflammation (a MIS-C variant in adults perhaps), the unmasking of underlying comorbidities, persistent infection or viral replication, and autoimmune dysregulation.

Scant evidence supports persistent infection, but persistent immune activation and subsequent cellular damage could explain some symptoms. A handful of case reports link COVID inflammation to damage of the substantia nigra region, resulting in the acute development of Parkinson’s disease. (Trends Neurosci. 2020;43[12];931; https://bit.ly/3p8zIS3.) A significant spike in Parkinson’s was also observed after the Spanish flu epidemic last century.

“I think it is true that COVID long haul may follow the pattern of some other viral illnesses,” Dr. Nath said. “Most people will get better, but a small percentage will not, and some of them will develop a chronic fatigue syndrome picture.”

Identifying the link between acute viral infection and chronic symptoms has been a mostly elusive endeavor. Parkinson’s disease, while not reported as a frequent sequela of COVID, represents a promising physiologic case study. The midbrain dopamine neurons that are impaired in Parkinson’s are densely packed with angiotensin-converting enzyme 2 receptors, known to be essential for SARS-CoV-2 cellular entry. An intriguing hypothesis is that SARS-CoV-2 infection can lead to an upregulation of a neuronal protein called α-synuclein that causes permanent damage to dopamine neurons. Other viral infections that target the brain, such as the West Nile virus and western equine encephalitis, have been associated with increased levels of α-synuclein. If such an upregulation of neuroinflammation can happen in the midbrain, it seems plausible that it might happen elsewhere.

“Unfortunately,” Dr. Nath said, “there will be some long-haul patients that just don’t get better and go from doctor to doctor looking for answers. And there will be uncertainty if they have neuroinflammation or psychiatric pathology.”

In other words, long-haul COVID seems likely to take on the mantle of a contested illness. That is troubling and problematic in myriad ways as we forecast the astounding total sum of COVID-19 infections globally. The potential for conflict between doctors, patients, and patient advocacy groups is staggering, especially as one considers other dynamics such as unscrupulous profiteers looking to make money from COVID-19 survivors, a potential flood of disability claims, and some medical publications that could sow confusion about the evidence-based consensus on the how, what, and why of long-haul COVID.

We in the ED will be on the front lines of frustration as usual. We will see the patients with brain fog, intermittent dizziness, and cognitive delay. Most likely, we will have to tell those patients that we don’t have the answers—or treatments. It may seem too soon to consider this, but it is not because post-COVID pathology is shaping up to be just as widespread and uncharted as COVID itself.

Next column: The connection between Morgellons disease and chronic Lyme disease and the marriage of contested illnesses. EMN