Are Trump's Problems with Walking, Drinking Water Due to Hydroxychloroquine?

By Chuck Dinerstein, MD, MBA — June 16, 2020

This past weekend at West Point, President Trump had trouble drinking a glass of water and he displayed an unsteady gait when descending a ramp. It is possible these problems indicate some type of neuropathy. And while it's unlikely, one potential cause is hydroxychloroquine.

As a vascular surgeon, I am well acquainted with what we call “gait disturbances,” an abnormal walk. I am sure many of you have seen individuals who have suffered from a stroke with partial loss of their leg, which results in a walk that is less fluid.

There are many diagnostic possibilities responsible for a change in our gait. I am, unfortunately, most familiar with structural alterations, e.g., loss of a portion of the foot, or unequal length of limbs. There can be issues related to injury; think of how we might “limp” after injuring our knee. And there can be neurologic causes, related to nerve injury, that leave the muscles weaker or altering proprioception – the sense of the position of the body in space, which is sensory feedback necessary for balance.

In watching the video of President Trump walking down the ramp, he does seem to be favoring one leg. To be fair, his explanation that it was a slippery incline may indeed be true.
But let's now consider the video of him pausing his speech to drink a bit of water. In the video, the president raises a glass, but he can't quite lift it to his mouth. He tilts his head down to get closer to the glass before using his left hand to fully raise the glass to his lips. From a diagnostic point of view, that changes the differential. Because while the gait disturbance has multiple causes, the lifting of the glass suggests a problem of muscular strength.*

So now, we have issues with two sets of muscles: the legs and arms. It would be odd to have an injury that involved two areas not be reported, especially involving the president. The same holds for structural problems, and that moves neuropathy up the differential list. What could be the source of a new-onset neuropathy? I know little of the president’s medical status. That is, except for one, perhaps salient fact: he said he has been taking hydroxychloroquine.

Physicians have rightly been concerned about the cardiac effects of this medication on the heart’s rhythm. But hydroxychloroquine has some other, less frequently cited adverse effects. If you read the FDA required package insert [2] under adverse effects, here is what you will find:

“Musculoskeletal and connective tissue disorders: Sensorimotor disorder, skeletal muscle myopathy or neuromyopathy leading to progressive weakness and atrophy of proximal muscle groups, depression of tendon reflexes and abnormal nerve conduction.” [Emphasis added]

Proximal muscles are those closest to our body, like the muscles of the upper arm that raise the arm and hand. Or the muscles of the thigh that are actively involved in all phases of walking [3]. It is not an overly common adverse side effect. It is probably relatively rare, but a quick search uncovered a review [4] of 10 cases of hydroxychloroquine associated neuromyopathy.

Again, let me emphasize that I am not attempting to diagnose an illness without performing both a careful history or physical examination. I am trying to point out a fallacy in the therapeutic use of medications. as there is always a tradeoff between benefits and risk. Always. In reporting on the president’s decision to treat himself with hydroxychloroquine on May 18, the New York Times reported, “Mr. Trump continued, explaining that his decision to try the drug was based on one of his favorite refrains: ‘What do you have to lose?’”

What indeed? It would be ironic that the drug President Trump described as a “game-changer” might instead turn out to be a “gait-changer.”

Note

*This, by the way, is a reasonable example of Bayesian thinking, where I adjust my original differential (probabilities) based on further information.
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