An Unfortunate Case of Disorientation and Confusion

Being Lost, While Lost in the Desert

Mark, a 35 year old male, decided to travel across the desert on a three hour drive to meet up with his girlfriend. Unfortunately, his car broke down partway through and he eventually decided to abandon his car and head into the desert thinking that he had seen water. He was soon lost in the desert suffering from heat stroke with first degree burns on his face and his back eventually causing him to have melanoma. Since he was out in the sun, on a radiant surface, he was exposed to massive amounts of heat and sun radiation this caused his body to struggle to maintain its homeostasis. He suffered from heat stroke with the symptoms such as being delirious, weak, nauseous, disoriented, having headaches, and having a temperature of 105 degrees fahrenheit. The Mayo Clinic states that the symptoms of heat stroke include “High body temperature, altered mental state or behavior, alteration in sweating, nausea and vomiting, flushed skin, rapid breathing, racing heart rate, and headache” (Mayo Clinic Staff, 2014) therefore Mark checked several of the symptoms of heat stroke leading to his diagnosis. Because he was suffering from heat stroke, his body had lost around 6% (4 liters) of his total body weight causing a massive amount of dehydration. Due to the dehydration his heart rate started to speed up and his pulse, in contrast, slowed down. According to the Livestrong journal, “Dehydration reduces blood volume...If blood volume is too high, [blood] vessels are overtaxed” (Unger 2015) meaning that as Mark got dehydrated, his heart started to work harder and faster in order to
compensate for his blood being thicker and harder to move thus causing Mark to be dizzy and disoriented.

Being exposed to the sun for hours on end, Mark consumed much greater amounts of Vitamin D as well as UV rays. Mark made a huge mistake when he took off his shirt and hat after feeling too hot because that allowed more surface area of his skin to be directly exposed to the UV rays from the sun. According to the American Cancer Society, “Ultraviolet (UV) rays are clearly a major cause of melanoma. UV rays can damage the DNA skin cells. Sometimes this damage affects certain genes that control how skin cells grow and divide. If these genes no longer work properly, the affected cells may become cancer cells” (American Cancer Society, 2016). Therefore Mark was diagnosed with melanoma.

Although it may seem as if Mark would instead have heat exhaustion, the symptoms provided do not represent those of heat exhaustion. The symptoms of heat exhaustion include “Heavy sweating, intense thirst, rapid pulse, nausea, headache, and blurred vision” (DiManna, 2016) and a few of those symptoms do match up to the ones that Mark was experiencing however, the main reason as to why Mark had heat stroke instead of heat exhaustion is because of his lack of sweating. With Heat stroke the skin becomes dry and hot while with heat exhaustion the skin is very much wet with sweat. When found, Mark’s skin was dry instead of wet leading to the diagnosis of heat stroke.
References


