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Research Article

COVID 19, A Generalized Intoxication More Than Generalized Viral Infection

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Abstract

The outbreak of the novel coronavirus SARS-CoV-2 (coronavirus disease 2019; previously 2019-nCoV), epi-centered in Hubei Province of the People´s Republic of China, has spread to 162 countries in about three months. Coronaviruses were first described in 1966 by Tyrell and Bynoe, who cultivated the viruses from patients with common colds. Observations so far suggest a mean incubation period of five days and a median incubation period of 3 days (range: 0-24 days).

A search for articles on COVID 19 in PubMed yielded 253,186 results were quite diverse topics and their relationship with covid are explored, however, apparently, the inverse relationship that exists between the incidence and prevalence of COVID and the levels of dissolved oxygen in the drinking water supplied to the population has not drawn the attention of researchers in this regard. Opposite of the effect of sewage drain on groundwater contamination including different contaminants, microbes, and pathogens, which deteriorate the groundwater by poor infiltration and leakage, subject that has received considerable attention.

Our finding in the human retina in 2002 that our body does not take oxygen from the air that surrounds it, but from the water that the cells that make up us contain, modifies our conception of the importance of dissolved oxygen levels in the water we use every day to bathe, to wash dishes, clothes, house, water the garden, etc., not only in the water we ingest. When correlating the dissolved oxygen values of the drinking water supplied to the population and the incidence and prevalence of COVID 19, a clear inversely proportional relationship emerges: the lower the dissolved oxygen levels, the greater the severity of COVID and vice versa.

Keywords: Carbon dioxide, Hydrogen, Human retina, Oxygen, Waterborne disease, Water dissociation

Introduction

On 30. January 2020, the WHO Emergency Committee declared a global health emergency based on growing case notification rates at Chinese and international locations. The case detection rate is changing daily and can be tracked in almost real time on the website provided by Johns Hopkins University [1] and other forums. As of midst of February 2020, China bears the large burden of morbidity and mortality, whereas the incidence in other Asian countries, in Europe and North America remains low so far.

Coronaviruses are enveloped, positive single-stranded large RNA viruses that infect humans, but also a wide range of animals. Based on their morphology as spherical virions with a core shell and surface projections resembling a solar corona, they were termed coronaviruses (Latin: corona = crown). Four subfamilies, namely alpha-, beta-, gamma- and delta-coronaviruses exist. While alpha- and beta-coronaviruses apparently originate from mammals and bats, gamma- and delta-viruses originate from pigs and birds. SARS-CoV-2 apparently succeeded in making its transition from animals to humans on the Huanan seafood market in Wuhan, China. However, endeavors to identify potential intermediate hosts seem to have been neglected in Wuhan and the exact route of transmission urgently needs to be clarified. But China's rapid urban growth has been accompanied by serious water issues. Drainage does not meet national flood-prevention safety standards in half of its cities, meaning flooding and contamination of the water supply are common [2]. Furthermore, China is especially susceptible to natural disasters: between 2004 and 2014 it experienced more recorded natural disasters than any other country in the world [3].

Wuhan in Hubei Province is a sponge city and a leading example of a nature-based approach to increasing urban resilience to climate change. Wuhan has initiated 389 separate sponge city projects covering 38.5 square kilometers (km^2) of the city, including urban gardens, parks and green space designed to allow water to infiltrate during regular precipitation and to direct water away from urban areas during flooding. Other projects include artificial lakes that draw water away from populated areas and water channels that can safely handle large volumes of water during flooding. Areas that are most vulnerable to water-related risks are also home to some of the world's largest and fastest growing cities [4]. Cities too are expanding - often in low-elevation coastal zones and near to major rivers [5]. In these cities, access to water, but also protection from it, are among the most pressing basic needs for many of these urban dwellers. Inefficient water management leads to unsustainable levels of consumption, over-extraction and contamination of water sources [6]. Serious water issues have accompanied China's rapid urban growth. More and bigger cities have replaced swathes of absorptive green space with impermeable surfaces [7]. Storm water drainage is largely considered inadequate: in half of all China's cities, drainage does not meet national flood-prevention safety standards [8]. Up to 80% of storm water in cities becomes urban runoff, polluting bodies of water by drawing off pesticides and fertilizers from fields, and garbage and human waste from urban waste systems, and feeding this into rivers and streams [9].

Wuhan City

Wuhan is the capital city of Hubei Province and the most populous city in central China. Water accounts for a quarter of Wuhan's total territory, resulting in it being known as the "River City" or the "city of hundreds of lakes" [10]. 8.5 million residents occupy around 8,500 km2 of land on the Jiangshan floodplain, where the Yangtze and Han rivers meet. Abundant water resources have driven the city's development, but the resulting urbanization has exacerbated flooding and increased water pollution. Of the city's 11 rivers, four did not meet prescribed water quality standards as of 2014. In July 2016, Wuhan was hit by torrential rains. More than 600 millimeters of rain fell on the city within a week - which is more than half of Wuhan's average annual rainfall. Floods affected more than a million residents, of whom 263,000 had to be temporarily relocated [11]. Economic losses totaled CNY 5.3 billion (approximately US$750 million) and 15 people were killed [12]. These issues are expected to worsen as the risks associated with climate change increase.

In Wuhan, sponge interventions can capture around 32 millimeters of rainfall every 24 hours, effectively increasing the city's drainage system by one-third without pouring a single drop of concrete [13]. However, extreme weather events like that in July 2016 have been known to bring rainfall more than 200 millimeters over the same time frame [14]. The outbreak of COVID-19 has disrupted most of all global supply chains. While affected countries have practiced social distancing, community quarantining, and lockdown to contain the spread of this deadly virus, widespread unemployment has caused social sustainability challenges along with economic distress. The International Labor Organization (ILO) has estimated that there could be up to 25 million jobs lost because of the COVID-19 crisis [15].

In general, the research works of the pandemic that began in Wuhan, have focused on the etiology, diagnosis, treatment and economic losses, as in the following article: With the outbreak of COVID-19 in Wuhan, aggressive countermeasures have been taken, including the implementation of the unprecedented lockdown of the city, which will necessarily cause huge economic losses for the city of Wuhan. And although access to drinking water is recognized as indispensable to maintain the health and productivity of the population, there is a parameter of drinking water that has gone unnoticed, despite its constant inverse correlation with the severity of the COVID. We refer to the levels of dissolved oxygen in the drinking water that is supplied to the population. During an observational study that lasted 12 years (1990-2002) and included the ophthalmological studies of six thousand patients, we began to detect several molecules inside the eukaryotic cells that make up us, with the unsuspected capacity to dissociate the water molecule [16]. As we were integrating our observation into a new metabolic scheme, we were realizing that our body does not take the oxygen from the air that surrounds it, but of the water that our cells contain inside, as in plants [17].

The water dissociation process that happens constant and uninterrupted and at room temperature (as in plants), inside the cells that make up us, is very accurate, amazingly exact. And while this process is in balance, our body works well, because it is very well done. But in today's life, the constant presence of contaminated water, contaminated air, and contaminated food, contribute that this fundamental process of life is in imbalance. And when such an important process, perhaps the most decisive in the origin of life, enters imbalance, the entire body as well, losing the amazing harmony that characterizes living beings. And since our body does not take the oxygen from the air that surrounds it, but of the water that our cells contain inside, (Figure 1 and 2) if the drinking water contains levels below 6 mg/l, our body begins to dysfunction because it cannot extract enough oxygen (and hydrogen) to correct the constant and substantive amounts that our body constantly requires, at every moment, both day and night, and even Sundays and holidays.

Hence there is an inverse correlation between the levels of Dissolved Oxygen (DO) in the drinking water that is supplied to populations and the severity and number of cases of Covid patients. This is: at lower levels of Oxygen Dissolved (DO) in drinking water, greater incidence, prevalence and severity of COVID, and vice versa. A parameter (DO) that fits so precisely in the case of the COVID, is to attract attention, since it is fulfilled again and again, both in the severity and number of patients, as well as the opposite, which explains that there are regions in the different countries, which were not affected, as is the case of New Scotland, in Canada, and Nigeria, in Africa. Of course, the examples to the negative side (greater incidence, prevalence and severity) are many more numerous since water pollution worldwide is more or less uniform. Positive cases with less affectation, are explained since for natural reasons, dissolved oxygen levels are high. For instance: Glenn, Mendocino, Butte, Trinity, Humboldt, Del Norte, and Curry, in North California, USA [18]. But it is enough to see the dissolved oxygen levels in drinking water, and undoubtedly successful the forecast. At higher levels of dissolved oxygen in drinking water, lesser or no covid affectation among the inhabitants of the area, and vice versa. An interesting case is that of people living in street condition (homeless). When the pandemic began, we all believed that they were going to be the first to fall. And nowhere did nothing happen to them. And the possible explanation is that they do not have contact with water with little dissolved oxygen, because they do not wash dishes, they do not cook, do not wash clothes, do not bathe, do not wash home. With the only water they have contact is with bottled water, which they drink, and it turns out that it is the least bad. On the contrary to the heat wave, which has significantly affected said population segment.

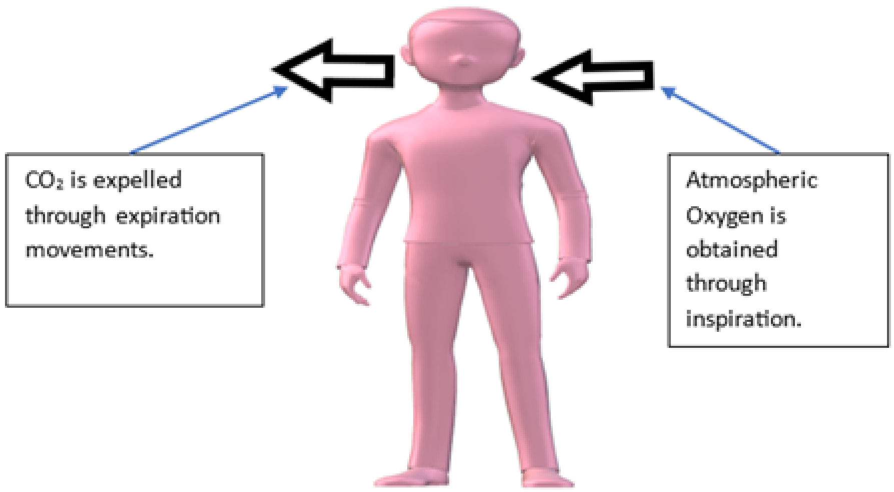

Figure 1: Classic scheme of atmospheric oxygen flow and CO_2 through respiratory movements, proposed by Lavoisier in the mid -eighteenth century, and that unfortunately remains in force to date, since it is one of the foundations of physiology and biochemistry in humans.

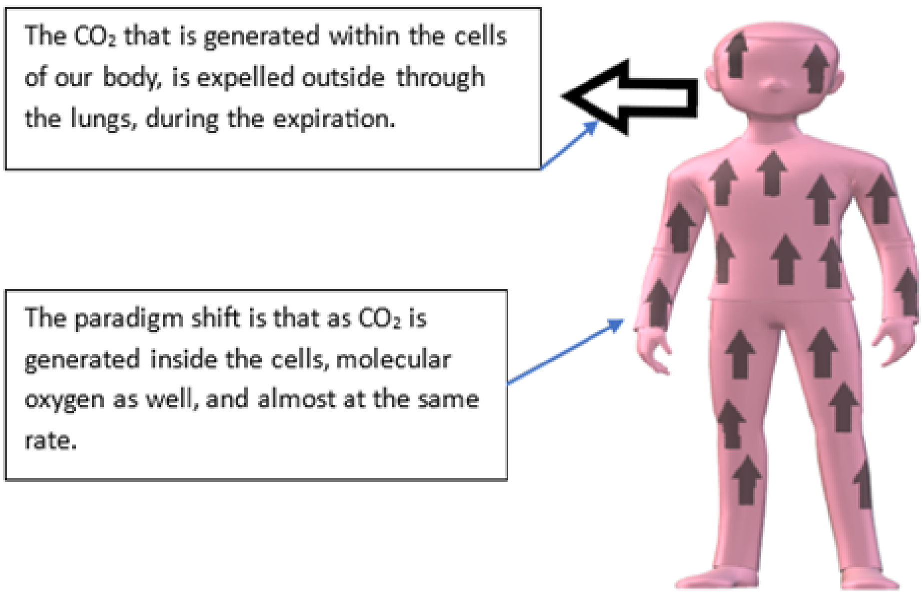

Figure 2: Our conception that our body takes the oxygen that requires the surrounding atmosphere, dates from the mid -18th century, and prevails to this day. Our observation that the eukaryotic cell has various molecules that dissociate the water molecule, breaks the paradigm, as well as CO_2 is generated inside the cells of our body, it turns out that the molecular oxygen that our body requires, also.

Why COVID-19 Silent Hypoxemia is Baffling to Physicians

The Wall Street Journal considers it a medical mystery as to why "large numbers of Covid-19 patients arrive at hospitals with blood-oxygen levels so low they should be unconscious or on the verge of organ failure. Instead, they are awake, talking-not struggling to breathe- [19]. The lack of patient discomfort at extraordinarily low blood-oxygen concentrations as defying basic biology [20]. Writing in The New York Times, Dr. Levitan, with 30 years of emergency medicine experience, notes "A vast majority of Covid pneumonia patients I met had remarkably low oxygen saturations at triage—seemingly incompatible with life— but they were using their cellphones . . . they had relatively minimal apparent distress, despite dangerously low oxygen levels" [21]. Despite this extensive coverage in the news media, the topic has not been addressed in medical journals. Several factors could explain why oxygen readings and lack of dyspnea in patients with COVID-19 are baffling to physicians, including the effect of hypoxia on the respiratory centers, the effect of $PaCO_2$ on the ventilatory response to hypoxia, the hypoxia threshold that precipitates dyspnea, the limited accuracy of SpO2 below 80%, shifts in the oxygen dissociation curve, the tolerance of low oxygen levels, and the definition of hypoxemia. However, we would add one more explanation: the unsuspected capacity of the eukaryotic cell to dissociate water molecules, through several molecules, as in plants [22].

Given that patients with COVID-19 exhibit several unusual findings, it is possible the virus has an idiosyncratic effect on the respiratory control system. But more than links the silent hypoxemia with the development of thrombi within the pulmonary vasculature by tangled theories, we think that CO_2 accumulation is the main problem, and it is the main function of the lung. The lung and oxygen have nothing to do, and that is why when the natural supply of oxygen decays, which must come from the inside of the cell outward, and not from the atmosphere, as until now it was thought, the CO_2 Start rising quickly. Especially in the lung because where the entire CO_2 that the body generates, to be expelled in gas form. Hence, pneumonia is a frequent manifestation of oxygen (and hydrogen) depauperating at the intracellular level. And a reliable test that the great oxygen volumes (and hydrogen) that our body constantly requires, must be generated at the intracellular level by means of the dissociation of the water that the cell contains, they arrive at the hospital, and health personnel try to force oxygen entry into the lung, especially with an endotracheal tube, mortality is unacceptably high, reaching 90 %, especially in some cities, regions or countries.

Conclusion

The observation that our body does not take the oxygen from the surrounding air, but of the water that the cells that comprise us contain, like plants; It constitutes the basis of a revolution of biblical proportions in biology, medicine and related areas. We cannot remain hooked in a theory of the 18th century. The impact that oxygen (and hydrogen) that our body constantly requires, must come from the interior of the cell, generating through the dissociation of water through several molecules, such as plants, it implies a complete restructuring of thought, of clinical analysis, as well as the teaching-learning process in the careers of biology, medicine and other related sciences. Therefore, health professionals must radically modify the principles in which they practice and teach medical science. And the sooner the better, because it will result in a better health level for the population. Breaking such a rooted dogma that dates back to the 18th century, implies breaking the complete building of medical science, so obstacles are not minor, but it is our duty to face it in pursuit of the goods of present and future generations.

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Conflicts of Interest

None.

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