



Philosophy: Understanding the reason behind some patients are infected with Coronavirus/COVID-19 portraying symptoms and others are asymptomatic

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Sir,

Suppose we would look back and retrieve the basic principles of virology on understanding viruses' action. We would ponder on a specific analogy, which is as long as the virus did not find a host [1], [2]; it will remain in its dormant state till it finds a host to switch on to the active state then to proliferate and develop to spread out in the environment it resides at [2]. Viruses have a complex structure on its surface, making it difficult for scientists to screen the whole structure to identify all the suitable markers on its surface to find potential drugs against it to stop its action and hinder its activity [3]. Thankfully, we are in a developing era where new advanced technologies associated with industry 5.0 [4] are present to help scientists screen the virus complex structure in a short time.

Ever since the pandemic is announced by the world health organization (WHO) [5], the front-liners and scientists under the WHO umbrella stand together for solidarity to attack this invisible virus, which is Coronavirus/Covid-19 that came from a single source from Wuhan, China. The virus transmits by horizontal transfer [6], resulting in a propagated source outbreak across the globe [7]. Many scientists took the lead and commenced doing several projects to understand Coronavirus/Covid-19. Many of them found new biomarkers, which increased scientists' chance to find potential ways to tackle this virus.

The methodology applied for this literature review search was conducted using the databases from mainly PubMed and Elsevier.

According to a study performed by Hu et al. [12], [13], the clinical characteristics of 24 cases with asymptomatic infection were screened from close contacts. They were capable of reflecting the potential for asymptomatic COVID-19 virus carriers to transmit the virus. In Nanjing, Jiangsu Province, China, in both clinic and the community, epidemiological investigations were conducted on all close contacts of COVID-19 patients (or suspected patients). Do take note that none of the 24 cases developed severe COVID-19 pneumonia or died [13]. **Table 1** [12], [13] below illustrates the result obtained from this study:

**Table 1:** Clinical characteristics obtained from the study performed on 24 asymptomatic patients

<i>No. of cases out of 24</i>	<i>Percentage (%)</i>	<i>Findings</i>
5	20.8	Developed symptoms such as fever, cough, fatigue, Etc.
12	50.0	Presented typical CT images of the ground-glass chest
5	20.8	Presented stripe shadowing in the lungs
7	29.2	Showed normal CT image and had no symptoms at all *involved by patients of a younger age (median age: 14.0 years; P= 0.012)

After analyzing the above results, the virus represented an intriguing trend between symptomatic and asymptomatic patients. In general, RT-PCR and other laboratory tests are the only way to identify asymptomatic infections, on the other hand, medical attention and observation by medical personnel are the only way to detect symptomatic cases [8]. A theory to throw attention on is that this estimation may provide an important insight where a targeted population can be assessed to reflect asymptomatic viral shedding [8], [9].

According to lie et al., [10], the asymptomatic percentage in evacuees was estimated to be 30.8% (95% confidence interval 7.7–53.8%) according to the binomial distribution methodology applied by the author. This data is vague and must be considered that more statistics and data should be obtained to provide evidence and prove the significance between asymptomatic and symptomatic. Furthermore, on the 6th of March 2020, after a minimum of 30 days had elapsed since the citizens had departed from Wuhan. A length of observation was sufficiently more extended than the COVID-19 incubation period. Thus, there was very little probability that the virus-positive asymptomatic individuals would develop symptoms [11].

To conclude, the asymptomatic carriers identified from close contacts were prone to be mildly ill during hospitalization. This highlights the importance of tracing close contact patients and longitudinal surveillance via virus nucleic acid tests to understand these asymptomatic patients and the reason for them being asymptomatic. It should also be recommended that discharged patients continue to undergo a nucleic acid test and further isolation. Based on the results obtained above, it proves that some patients that are infected with Coronavirus/Covid-19 show symptoms and some are asymptomatic. The author linked this incident with the principle analogy of viruses' mode of action that the virus only requires a host to be invading cells and switch from dormant state to active state. This analogy means that the virus is not entirely dormant/inactive since it can migrate to find the appropriate host.

This analogy made the author thought that viruses have a missing part and that missing part is missing because, with technology, scientists made it clear and almost screened the whole virus. However, this missing part will not be detected because it can only appear before the virus invades the host. This makes it clear that there is a high chance that viruses have an activated arm that is the only active part in the virus and that arm searches for the host following particular attractants/cell signaling to a specific host. This is a very tricky behavior that a virus's action was expressed into a combination of stages, where virus replication involves stages of both silent and productive infection without rapidly killing or even producing excessive damage to the host cells. This process falls under the umbrella of persistent infection [12] to make the immune system overlooks its presence.



The arm detaches itself after it bounds to the appropriate host, then the virus is ready to reveal itself. It means that the Coronavirus/Covid-19 is a selective virus questing for a particular host apart from other hosts. According to the data/repositories from scientists that we have, the coronavirus infects the respiratory system, causing adverse effects on the lung's function and pneumonia [14]. This data makes it more evident that if the virus could migrate from one place to another, it is not dormant; however, it is active, but disguised. If we would compare the histology of the lung/blood cells from different patients and gather data about the following: 1) infected patients with symptoms, 2) infected patients without symptoms, and 3) healthy uninfected patients. Aided with the criteria for choosing the most valid patients, which is crucial as it helps scientists apply specific theories according to references. There is a definite conclusion for choosing patients based on these criteria's: age, gender, ethnicity, and most recently is blood type group [15]. This is vital because there was a study conducted only with age and however, the weakness of this study is that age-dependence was considered and other aspects of heterogeneity were ignored [8]. This would help to screen all potential biomarkers from the isolated cells and perform a comparison.

On top of this, tests should be applied *in vitro* with isolated Coronavirus/Covid-19 [16] to identify the antigen/arm that the virus and lung/blood cells have in common that led to activate/switch on the virus to migrate towards the lung/blood cells and bind to its receptor compared to other cells although the virus is in dormant phase Or maybe it is active, but in disguise and what will reveal this if we noticed that arm that bounds and detaches itself once the virus reaches its host. Estimation of the asymptomatic ratio, the percentage of carriers with no symptoms will improve the understanding of COVID-19 transmission and the spectrum of disease it causes, providing insight into an epidemic spread. Although the asymptomatic ratio is conventionally estimated using seroepidemiological data [7], [17], the collection of these data requires significant logistical effort, time, and cost. Instead, we propose a method of estimating the asymptomatic ratio by using the information on all travellers who were evacuated from Wuhan, China, on charter flights. This theory would help scientists further understand the novel Coronavirus/Covid-19 virus mode of action, opening up new discussions and potential ways to inhibit the receptor or the producer of the hormone or the arm that led to the virus to migrate towards the host. On top of this, this theory would help make the correlation between the virus's reason showing no symptoms and the prolonged duration of the prodromal phase of the virus [11]. Therefore, it is a possibility to prove that the virus is asymptomatic to some infected patients because the virus did not find its suitable host to reside at to proliferate and become active.

According to Yan Bai et al. [18], If the findings in this report of presumed transmission by an asymptomatic carrier are replicated, the prevention of COVID-19 infection would prove challenging. If the virus portrays asymptomatic behavior, which means that the virus did not find its suitable host yet, or maybe the body is not a suitable host for it at all, but that does not mean it is not contagious. Maybe the arm has not found the appropriate signaling to migrate towards it. The mechanism by which asymptomatic carriers could acquire and transmit the coronavirus causing COVID-19 requires further studies, backed up by quantum biology and epigenetics studies on dormant viruses before activation. By this theory, the author suggests that we could understand a little bit of its mode of action if experiments are performed and having valid recorded results.



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CONFLICTS OF INTERESTS

The author has no conflict of interest to declare.

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