

Opinion

Is Sars-CoV-2 variant Omicron less dangerous than the endemic seasonal human coronaviruses?

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Abstract

The emergence of the Sars-CoV-2 Omicron variant(s) was a tipping point which led from the 2020/2021 Covid-19 pandemic to a surprisingly early endemic situation. Contrary to what is discussed by some virologists, a replacement of Sars-CoV-2 Omicron by another variant that produces more clinically problematic courses is only a theoretical possibility. In real life this will not happen. Instead Omicron seems to be even less lethal than the endemic hCoVs we have been knowing for decades. Therefore, now is the time to develop entirely new vaccines, not only against the Sars-CoV-2 virus but also to protect vulnerable populations against the human coronaviruses OC43, HKU1, 229E, and NL63. These coronaviruses are, as of early 2022, a greater public health threat than the Sars-CoV-2 virus with its Omicron variants.

The end of the pandemic and the dangers thereafter

Currently, all media and scientific attention is still focused on the Sars-CoV-2 virus, currently in its "Omicron" variant which, within just eight weeks, has led the global pandemic into a state of endemicity (Ivanova et al. 2022). After two years of a global epidemic and high fatality rates, there is currently reluctance to acknowledge the new realities. Vaccines against the Omicron variant are being produced and warnings are being issued against super-mutants that combine, for example, the infectivity of the Omicron variant with the dangers of the Delta variant. However, this is only a theoretical possibility, if at all. We can be quite sure that after an infection with Sars-CoV-2 Omicron the recovered patients will have a robust immunity against other variants, e.g. Delta.^{4,19} Secondly, with Omicron a new serotype has emerged, which with an R0 value of ~10 (first generation) or ~12 (second generation) leaves no room for a new, more dangerous variant of the Sars-CoV-2 virus (ibid.) which quite some experts use as an argument for certain decision, despite the fact that they know it better. Therefore, now is the time to move forward.

Creating a new vaccine which tailored exclusively against Sars-CoV-2 Omicron might be politically justifiable, if at all. It can be considered proven that the Omicron variant and its spin-offs no longer pose a particular threat to public health. Omicron's CFR (case fatality rate) is in the lower range of the endemic human coronaviruses (hCoVs). It is currently thought to have a CFR which is 91% lower than that of Delta. That would be ~0.4% in numbers.^{20,21}

More crucial, however, is another comparison. Now that Sars-CoV-2 type Omicron has joined the group of the endemic human coronaviruses, it is imperative to recall that these viruses are by no means just harmless cold viruses but the cause of severe and deadly pneumonias among seniors and other vulnerable individuals every winter.^{8,14,22,23,24,25,26,27,30-38}

A comparison of the Case Fatality Rate (CFR), i.e. the risk of dying from these viruses in the case of symptomatic disease, highlights the importance of policy makers, scientists and vaccine manufacturers to no longer focus solely on Sars-CoV-2. Among the hCoVs known to date, the CFRs are ~1.5% for HKU1, ~3.0% for NL63, ~1.0% for E229, and ~2.5% for OC43.²²⁻³⁸ In hospitalized patients with hCoV viral pneumonia, the 30-day mortality rate is 25% for hCoV 229E and about 9% for hCoV OC43.³⁴ As previously stated, the CFR of Omicron is currently believed to be 0.4%.^{20,21} Sars-CoV-2 Omicron is thus, if the data remain stable, currently the least dangerous known endemic human coronavirus. For reasons also elaborated previously and elsewhere (Ivanova et al. 2022), this is expected to remain the case.

On this basis, the ongoing fixation on the Sars-CoV-2 virus can only be explained by the psychologically traumatizing effects caused by the Wuhan virus and the subsequent Sars-CoV-2 pandemic with very worrisome variants that brought death and suffering to the world. It is therefore understandable that a more objective view is difficult for many experts, including top researchers, and even more so for politicians.

However, this does not take into account the new situation and the necessary reactions to it.

What the world needs now is not an artificial prolongation of a pandemic based on a relatively mild virus variant which has already become endemic. The production of an omicron-only vaccine is a useless waste of intellectual capacity and monetary resources. By the time the Omicron vaccine will be available, a substantial part of humanity will already have been exposed and recovered with a surprisingly wide immunity against future virus variants.^{4,19} Rather, now would be the ideal time to put an end to the deadly rampage of all five endemic human coronaviruses (HKU1, 229E, OC43, NL63, and Sars-CoV-2 Omicron) through vaccines. Vaccines that can robustly and reliably last a winter season or longer. The pandemic led to the know-how of how to produce such vaccines. This is what should be done now.

Conclusion

Given these facts, it is absurd to produce a vaccine effective only against the omicron variants (of which there will be many) of Sars-CoV-2 and to administer it on a large scale. Instead, it would be of great importance to develop seasonal vaccines against all endemic human coronaviruses. This would be a real help in saving lives. The technical conditions are now available, and it cannot be explained to the medical community or the public why vaccines against such a relatively harmless virus as Sars-CoV-2 Omicron (CFR ~0.4%) should be produced and mass distributed, while hCoV-OC34, NL63, HKU1, and 229E (CFR ~1.0 to ~3.0%) continue to cause hundreds of thousands of fatal cases of pneumonia each winter (or a Kawasaki-like disease³⁹ in small children). The political decision to focus on an anti-Omicron-only vaccine is absurd from a medical perspective. It is time to realize that the Sars-CoV-2 pandemic has become endemic with Omicron, leaving significant other challenges that must be addressed. This is only possible if all decision makers understand that the situation has changed dramatically between November 2021 and January 2022.

Conflicts of interest

none

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