EDITORIAL

COVID-19 VARIANTS: RESEARCH OPPORTUNITY

VARIANTES EN COVID: OPORTUNIDAD DE INVESTIGACIÓN

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At a time of social distancing, we must show greater unity than ever before.

This is an unprecedented reality that will inevitably lead us to change the way we behave as social beings.

Therefore, we need reliable information from properly designed and conducted studies. This information will help us understand what we are currently suffering from and therefore respond to the circumstances and scientific evidence. It is therefore vital to recognize the importance of basic and applied research in the context of today's health emergency in our environment and around the world.

In this respect, Peruvian universities, both public and private, have an important role to play as institutions that welcome and prioritize research. In addition to the challenge of new teaching practices, that is the transition from unidirectional (face-to-face) to reciprocal (remote) teaching, where the teacher will be the guide in the student's learning[1], the university shall promote, encourage and enhance the training of researchers and cooperation with research groups of international institutions.

Likewise, the State and private enterprises must support these academic institutions, by investing in science which will generate the necessary knowledge that will serve as the basis for producing the technology that should foster the development of the country.

Therefore, universities should propose development and research plans, regardless of which protocols may be proposed or managed by the World Health Organization (WHO)[2]. Thus, in this second wave, it is vitally important to reassess and categorize the new risk factors for the evolution of the severity of COVID-19, as well as studies to determine the presence of variants in our environment.

Michael Osterholm, Director of the Center for Infectious Disease Research and Policy at the University of Minnesota, in an interview on NBC's Meet the Press show, said the COVID-19 pandemic is about to get unprecedentedly worse, and, referring to the increase in cases associated with the new variants of the coronavirus, predicted that "hurricane is coming", labeled "COVID-19 Hurricane", an expression intended to consolidate the elements that may lead to a new clinical presentation of the pandemic[4]. During the interview, Dr. Osterholm indicated that in our environment, the following variations are thought to be circulating: B.1.1.7 from the UK (which increases transmission, with little evidence of immune evasion, which increases ~50% transmission and ~30% lethality), B.1.351 from South Africa (with little evidence of increased transmission and presence of immune evasion) and P.1 from Brazil (same as above, with little evidence of increased transmission and presence of immune evasion)[3]. Therefore, the vaccine's response to these new forms of coronavirus is a concern, and this is becoming a trend in terms of what the future holds.

During the "first wave" of SARS-CoV-2 infection in our country, seroprevalence frequencies ranged from

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38.8% in the city of Cuzco(5) to 70% in the city of Iquitos[6]. During this "second wave", according to the Health Organization (WHO), there has been an increase in new cases and lethality since the 52nd epidemiological week of the year 2020, to this day[7] in our country. This second wave gives us the possibility to assess and study the evolution of the clinical picture (which appears to be more complex), the severity and fatality of the illness (which appears to be higher), the search for new associated risk factors (which appears to be in younger patients, with onset of chronic non-communicable diseases and females), the risk of self-medication (which appears more severe because of the irrational use of broad-spectrum antibiotics) and the effect on health personnel, who are exhausted and have high rates of affective disorders, such as anxiety, reactive depression and post-traumatic stress. In this context, it is also important to promote studies that seek to identify genetic variants linked to the results of COVID-19. These genetic variants can be evaluated not just in the SARS-CoV-2 virus, but also in the host, so the findings would be useful in determining the

risk for severe forms of COVID-19 in some affected individuals. A recent study in the United Kingdom[8] suggests that this variant is more infectious and with an increased risk of mortality. And, considering that the variants are similar, it is likely that they behave the same, explaining the changes in clinical behavior.

As a result, the response to COVID-19 Hurricane will require quicker vaccine delivery and improved genomic monitoring. It will also require transmission reduction strategies that have been recommended since the beginning of the pandemic, such as the use of properly worn masks, adherence to physical distancing, and limiting time indoors between people not living under the same roof.

Finally, another consideration for research in this emerging COVID-19 context is the impetus of studies on COVID-19 syndrome[9] to try to understand and deal with what this pandemic is generating in those affected and in society. As well as the effects in the psycho-affective sphere of the users, external and internal, of the health institutions.

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