Diagnostic bias in COVID-19 times

Sesgo diagnóstico en época de COVID-19

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Background

Before the advent of the pandemic, observations were made about our poor capacity to detect and/or predict the emergence of new pathogenic viruses that might affect humans, and identifying risk areas for this type of outbreaks was therefore proposed in 2018. However, the surveillance systems that were required for this task were not implemented in many countries. In Mexico, strategies extrapolated from previous experience obtained from the H1N1 influenza pandemic were incorporated. Social distancing and communication about risks were implemented again in March 2020, with disease increase peaks having been observed so far, as well as the creation (in the country's capital) of a specific temporary center for coronavirus disease 2019 (COVID-19)¹.

The COVID-19 pandemic clearly changed everyday activities and behaviors around the world. The medical sector was no exception, since most public sector activities revolved around COVID-19. In this context, it is possible for doctors to have suffered from cognitive bias at the time of making their diagnoses in medical practice, and emergency situations such as the pandemic could have increased this.

Ever since the World Health Organization (WHO) declared that COVID-19 was behaving as a pandemic, on March 11, 2020, the entire world changed its everyday activities and behaviors, with some countries even closing their borders. Health and social security

systems found it impossible to provide the necessary medical care, especially in low- and middle-income countries. Nobody was fully prepared to receive this pandemic, which saturated health services due to the associated morbidity and mortality. Even today, we are experiencing its consequences. These have also become a medical care problem, sometimes requiring respiratory, neurological, psychiatric and other types of rehabilitation. Countries like China built specialized care centers to mitigate the damages; however these measures did not have the same impact on mortality in some Latin American countries. Countries like Brazil and Mexico have recorded more than 220,000 deaths so far.

Once vaccination started in November 2020, the entire planet was filled with hope; with faster advances in higher income countries, the WHO made a call for these resources to be shared with more economically-limited countries, which has occurred irregularly.

Doctors in Mexico care for patients who suffer or have previously suffered from COVID-19 on a daily basis; usually, we carry out an exhaustive examination of each one of them, keeping in mind the sequels of this infection in our patients. It is at this point that the possibility arises for us to fall into cognitive bias at the time of diagnosis. Cognitive biases have been associated with up to 74% of diagnostic errors in medical practice, and emergency situations such as the pandemic may have increased them, as it has been

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clearly observed in multiple case reports of this situation in the medical literature^{2,3}.

The burden of chronic-degenerative and metabolic diseases appears to have increased during the pandemic, both in terms of incidence and complications, and the reduction in the care of these situations, as well as of other prevalent diseases in our country, has diverted attention and interest both from doctors and authorities, which is why the issue deserves a rigorous analysis^{4,5}.

With this in mind, the diagnostic approach should be conducted with the same clinical and scientific rigor that was applied prior to the pandemic in order to reach an accurate diagnosis of the clinical manifestations each patient presents with, even when they have previously or currently tested positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is important to introspectively recognize the risk of cognitive bias in this pandemic situation, since (according to Wilson and Breeke's proposal) the second step in the process of eliminating these biases is to identify them within our daily medical tasks, followed by finding adequate motivation for eliminating them⁶.

Conclusions

Our country's health situational diagnosis shows that, despite the fact that COVID-19 has claimed countless lives and has positioned itself as the leading cause of maternal mortality, other risk factors and chronic-degenerative diseases continue to be relevant. Cognitive bias can delay timely diagnosis, and the doctor must be in constant reflection to avoid it. It is important to make clinicians aware of the cognitive bias we can suffer from when approaching patients during this pandemic, and of the importance of having clear which is the current outlook of the diseases that afflict our population.

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