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Correspondence

A letter to the editor on “World Health Organization declares global emergency: A review of the 2019 novel Coronavirus (COVID-19)”


Dear Editor

In reference to the comments by Sohrabi C et al. [1], we have reviewed the data on the Coronavirus, COVID-19 outbreak. To be more specific, we have looked at comparisons between Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) diagnostic criteria based on symptoms and history of travel, and classify clinical features and epidemiological risk.

We are particularly interested in focusing this commentary on the suspected case stage, as countries with limited economic resources are not able to provide mass nucleic acid assays or identification by specific antibodies tests to their populations.

Faced with a new disease, such as COVID-19, diagnostic criteria must be established and formulated temporarily and constantly updated. In this case, the Chinese Medical Association has been presenting different versions of diagnostic criteria since January 22, 2020 [2]. The identification of a clinical case must meet two conditions, the first is that the detection method has high sensitivity, and the second is that it gives rapid results to obtain a diagnosis without delay. For this reason Tan HZ comments as the best detection method is the one that classifies it in three stages: suspected case, clinical diagnosed case, and definite diagnosed case [2].

According to the WHO, patients with mild illness, to quote the WHO, 13 March 2020, are those with “uncomplicated upper respiratory tract viral infection with symptoms such as fever, fatigue, cough, anorexia, malaise, muscle pain, sore throat, dyspnea, nasal congestion or headache, in addition, but not often, with diarrhoea, nausea and vomiting”. Since 20 March 2020 [3], the case definition for global surveillance of monitoring trends in COVID-19 at national levels has 3 options; A, B and C. All are based on fever and acute or severe respiratory illness and history of travel and are considered suspected cases [4].

CDC indicate COVID-19 patients as those who have cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, and loss of taste or smell as symptoms [5], and close contact with confirmed COVID-19 patients.

In addition, based on WHO, CDC, NICE (National Institute for Health and Clinical Excellence, <https://www.nice.org.uk/>), National Health Commission of the People's Republic of China (<http://www.nhc.gov.cn/>), and National Administration of Traditional Chinese Medicine (<http://www.satcm.gov.cn/>), Ying-Hui J et al., suggest guidelines for the diagnosis and treatment of COVID-19. Their proposal for a suspected case in the early stages of disease onset, is to take two points into account, clinical features such as fever, computed tomography/X-ray

imaging characteristic of pneumonia, normal or reduced white blood cell count, or reduced lymphocyte count, and epidemiologic risk [6].

However, based on the case definition of the WHO, other reports, such as that of Guan WJ et al. [7], focused on interim guidance, with stratification stages in disease severity, January 28, 2020 [8] found that of 1099 patients, 43.8% presented fever at admission, and 67.8% had a cough. Wang D et al. based on interim guidance, also from January 28, 2020, stratifying patients in intensive care unit (ICU) and no ICU, found fever in 98%, and a cough in 76% of 138 patients [9]. It is likely that, depending on the stage of disease, some of the subjects did not meet the diagnostic criteria of the WHO [10].

To date, most COVID-19 cases have no history of travel, indicating the infection has spread by community transmission. Apart from this, on admission, patients with COVID-19 show other symptoms. A multicentre European study of 417 mild-to-moderate COVID-19 patients found 11.8% had olfactory dysfunction before the onset of other symptoms, 79.6% were anosmic and 20.4% were hyposmic, and 78.9% had a reduced sense of taste [11]. However, initial reports from China did not include olfactory dysfunction. Could the expression of different symptoms in Europe but not found in China be related to genetic variations [12] in SARS-Cov-2?

With more updating of criteria by region, clinical detection of cases will increase, and we will learn more about COVID-19 and its impact on countries that do-little testing.

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Laura Pérez-Campos Mayoral (PhD)
Centro de Investigación Facultad de Medicina UNAM-UABJO, Facultad de Medicina y Cirugía, Universidad Autónoma “Benito Juárez” de Oaxaca, Oaxaca, 68020, Mexico
E-mail address: laurapcm@prodigy.net.mx.

María Teresa Hernández-Huerta (PhD)
CONACyT Facultad de Medicina y Cirugía, Universidad Autónoma Benito Juárez de Oaxaca, Oaxaca, 68020, Mexico
E-mail address: marte-hh28@hotmail.com.

Gabriel Mayoral-Andrade (PhD), Eduardo Pérez-Campos Mayoral (PhD)
Centro de Investigación Facultad de Medicina UNAM-UABJO, Facultad de Medicina y Cirugía, Universidad Autónoma “Benito Juárez” de Oaxaca, Oaxaca, 68020, Mexico
E-mail addresses: drmayoral@gmail.com (G. Mayoral-Andrade), epcm@live.com.mx (E. Pérez-Campos Mayoral).

Eduardo Pérez-Campos (PhD)*
Tecnológico Nacional de México, IT de Oaxaca, 68030, Mexico
Laboratorio de Patología Clínica” Dr. Eduardo Perez Ortega, 68000, Oaxaca, Mexico
E-mail addresses: pcampos@itoaxaca.edu.mx, perezcampos@prodigy.net.mx.

* Tecnológico Nacional de México, IT de Oaxaca, 68030, Mexico.