

On December 31, 2019, the World Health Organization (WHO) received an alert that a cluster of atypical pneumonia cases had appeared in Wuhan, China. Investigations have revealed that a new coronavirus is circulating and causing what we now know as "Coronavirus Disease 2019" (COVID-19). COVID 19 is a new disease caused by a virus recently identified as "Severe Acute Respiratory Syndrome Coronavirus 2" (SARS-CoV-2). This virus is genetically related to other coronaviruses, including the one responsible for respiratory syndrome severe acute (SARS) and the one that causes Middle East Respiratory Syndrome (MERS). The diagnosis tools of COVID-19 available so far based mostly on molecular tests for which the detection of viral genes by RT-qPCR has been shown as the most reliable technique and immunological testing based on specific SARSCoV-2 viral antigen detection in the early phase of infection, then, the human antibody detection testing in the later phase of the disease. In the other hand, artificial intelligence based techniques have an extraordinary capacity to offer an accurate and efficient system for the detection and diagnosis of COVID-19, the use of which in the processing of modalities would lead to a significant increase in sensitivity and specificity values. Furthermore, other techniques based on the use of ultraviolet rays are also used in the diagnosis of COVID19 which are phototests and photopatch tests, these two techniques are valuable for an evaluation of various photodermatoses. In this study, the current methods of COVID-19 diagnostic were presented as well as the diagnostic approaches that are still in the early research state.

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