Laboratory Diagnosis of Dengue Virus

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Editorial

Public health is continuously threatened by the Coronavirus disease pandemic of 2019 (COVID-19), underscoring the essential need for quick and effective early identification and prediction. Clinical, laboratory, and radiological findings were obtained from electronic and paper medical records, and we thoroughly examined and re analysed the published indexes and models for predicting severe illness among COVID-19 patients in our dataset, validating them on an independent dataset regarding epidemiological characteristics. PCA is a data reduction technique that can condense a large set of variables into a smaller set that still contains most of the information.

The results of this study suggested that the combination of NLR and SaO_2 performed better predictability value than other two indexes in the severity of COVID-19 patients with. ROC analysis of a single independent variable was calculated using the expression levels at hospital admission, and NLR had the biggest AuROC calculations with higher sensitivity, specificity, and CCR compared with the other significant published variables in both discovery and validation datasets. Patients with severe illnesses had higher neutrophil counts than those with less serious illnesses. The virus that causes severe acute respiratory syndrome coronavirus 2 is the source of the contagious disease known as Coronavirus disease 2019 (COVID-19) (SARS-CoV-2). In Wuhan, China, in December 2019, authorities discovered the first recorded case. The illness quickly spread throughout the world, causing the COVID-19 pandemic. Although COVID-19 symptoms can vary, they frequently include fever, [8] cough, headache, fatigue, breathing issues, loss of smell, and loss of taste. One to fourteen days after virus exposure, symptoms may appear. At least one-third of infected individuals don't experience any symptoms at all. The majority (81%) of those who experience symptoms that are noticeable enough to be categorised as patients do so in the mild to moderate range (up to mild pneumonia), 14% in the severe range (dyspnoea, hypoxia, or more than 50% lung involvement on imaging), and 5% in the critical range (respiratory failure, shock, or multi-organ dysfunction). Severe symptoms are more likely to appear in older people. Organ damage has been noted, and some people experience a variety of effects (long COVID) for months after recovery. Studies lasting several years are currently being conducted to learn more about the disease's long-term effects. COVID-19 transmits when people breathe air contaminated by droplets and small airborne particles containing the virus. The nucleic acid of COVID-19 can be detected using real-time reverse Transcription Polymerase Chain Reaction (rRT-PCR), transcription mediated amplification, and Reverse Transcription Loop Mediated Isothermal Amplification (RT-LAMP) from a nasopharyngeal swab, among other techniques. A number of COVID-19 vaccines have been authorised and made available in numerous nations, which have started mass immunisation campaigns. The use of physical or social isolation, quarantining, ventilation of indoor spaces, covering coughs and sneezes, hand washing, and avoiding touching one's face with unwashed hands are additional preventive measures. To reduce the risk of transmission, wearing face masks or coverings has been advised in public places. Although efforts are being made to create medications that inhibit the virus, symptomatic care is the mainstay of treatment. Treatment of symptoms, comfort care, seclusion, and experimental interventions are all part of management.

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