EDITORIAL

New Saliva Based Covid 19 Tests

The strategy for containment of Covid 19 during the pandemic of the past two years was – 'test, trace and isolate'. However, this strategy is now no longer needed or even applicable as the virus has mutated to a highly transmissible form such that most communities have been affected. This being the case, many health authorities and governments have been relaxing the protocols for mandatory testing and,even symptomatic individuals and primary contact testing has reduced significantly. Most affected are treated symptomatically.

The RT-qPCR technique of testing for Covid 19 which was the standard for laboratory diagnosis of Covid 19 has some shortcomings by way of longer run time, reduced on-site capability and unpleasant and intolerable mechanical procedure for most people.

The exploration of ways to develop a saliva based COVID-19 diagnostic method has led to a much simpler, non-invasive and comfortable method of sample collection.

Yale School of Public Health has developed Saliva-Direct, a saliva-based, nucleic-acid-extraction-free, dualplex qRT-PCR method for SARS-CoV-2 detection. The U.S. Food and Drug Administration issued an emergency use authorization (EUA) for its use in August 2020. This technique greatly helped in simplifying the sample collection and decreased the cost of procedure as saliva in this method of collection does not require a certified swab and collection receptacle; and it does not have to be collected by a trained healthcare provider.

Recently another new rapid, saliva based Covid 19 test named SaliVISION has been developed. This test uses reverse transcription Loop-mediated isothermal amplification (RT-LAMP), in which nucleic acids can be amplified under isothermal conditions, with a reaction time of less than one hour. So,the procedure is significantly speeded up, while still reportedly having 98% sensitivity and 100% specificity as compared to RT-qPCR technique. So, SaliVISION can be considered as a simpler, cheaper, non-invasive and low-risk alternative to current COVID-19 testing methods, which might encourage more people to get tested.

Considering the various reports of insufficient testing and increased apprehension and hesitancy of patients to get tested in our country, it may be beneficial to promote saliva based COVID-19 diagnostic techniques as alternatives to the currently existing ones.

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