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EDITORIAL

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or the 2019 novel coronavirus (2019-nCoV) has emerged as a new public health crisis that has affected the whole world. In December 2019, an outbreak of viral pneumonia was reported in Wuhan province of China which then spread globally. The causative agent was identified as a coronavirus that had >95% homology with the bat coronavirus and > 70% similarity with the SARS- CoV. In February 2020, the World Health Organization designated the disease as COVID-19, which stands for coronavirus disease 2019.This outbreak was declared a pandemic by WHO on 11th March 2020.

Being a new virus, not much was known about its transmission and pathogenesis. Due to the high rates of human to human transmission, the infection spread rapidly. Data from modelling studies were used by various health regulatory bodies like WHO, CDC and ICMR to project the load of patients and prepare responses accordingly. As new data emerged, several sets of guidelines were released by governments around the globe, which were continuously updated keeping in mind limitation of resources.

The public health strategies were focused on breaking the chain of transmission by early detection and isolation. As no specific treatment was available for this disease, prevention of infection, especially of the vulnerable population such as the elderly and people with co-morbidities was a priority. The presentation of COVID-19 was non-specific and varied a lot amongst cases. Hence the diagnosis was primarily lab-based, with molecular tests like real-time PCR being used as a diagnostic tool. The rapid Antigen detection test (RAT) though quick is not reliable. Another indigenous test developed is a card based test but is yet to be used freely. Recently antibody detection kits were also introduced but they have low sensitivity and specificity, hence RT-PCR remains the gold standard for diagnosis. With increase in demand for testing and requirement of shorter turnaround time, new laboratories were established or the molecular diagnostic capacity of existing ones was increased.

With the country undergoing a lockdown, the health care services geared up to handle the additional load of patients. Managing health services with public transport systems not working hampering the movement of workers, and ensuring the safety of healthcare workers was an important responsibility of doctors. Besides implementing protocols for sample handling and social distancing in laboratories, educating the staff about the disease and preventive measures helped in building confidence. Although universal guidelines are followed during the day to day handling of samples, more stringent were necessitated to prevent COVID-19 in healthcare workers. Working with full personal protective equipment (PPE) for long hours was a challenge in itself. This made the health workers faceless for patients causing mental stress.

Being highly infective, the health care workers are also in stress fearing for safety of themselves and their families leading to increased mental health problems.

Amongst those infected with COVID-19, only a small percentage had a severe course, requiring intensive care. Initially, all infected persons were provided with institutional care, but this overwhelmed the healthcare facilities. With limited critical care facilities, it was important that a distinction is made between patients who were expected to develop complications and those who could be managed with basic nursing care. Hence the concept of home isolation and management came.

The exact pathophysiology of COVID 19 is still not known with new theories being circulated from across the world. Development of ARDS (Acute Respiratory Distress Syndrome) is critical in course of COVID 19 and shows a poor prognosis. So early detection of its onset became important. Number of studies point to the role of cytokine storm in development of ARDS with laboratory investigations playing an important role. Several parameters such as IL-6, hs CRP, Ferritin, LDH etc. were shown to have a predictive role with serial measurements helping in prognosis of outcome. IL-6 was postulated to be an important player in cytokine storm and several studies were conducted to assess the efficacy of anti-IL-6 treatments but their outcomes were not conclusive. Other theories being studied are of increased thrombo-embolism in covid cases thus testing for D-dimer and coagulation parameters is necessary.

As far as therapeutic modalities in covid are concerned there is no specific drug available till date. Non -specific drugs are given with no documented benefits. Herbal preparations are recommended by Ayurveda as immunity boosters with no specific role in Covid. But the management as of now mainly remains symptomatic and supportive.

As we gain more and more knowledge with each passing day, there is hope that we will be able to overcome this health challenge. A lot of research is being done into various aspects of Covid-19, and our knowledge of the virus and the disease is being updated continuously. But the most awaited is launch of a vaccine for COVID 19 anywhere in the world which will get us back to our older way of life. As of today the pre covid life remains a dream. Till then we have to continue living with the virus and take all safety precautions at home and in workplace.

Till then wear a mask, wash / sanitize your hands, and maintain social distancing which are mainstay to healthy and safe living.

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