

## LETTER TO THE EDITOR

### 10 'C' in COVID19

World war 'C'<sup>1</sup> has set in against an invisible virus. The routes of transmission include Contact of contaminated objects, and Circulating droplets in the air called aerosols disseminated through Cough, sneeze and ocular secretions<sup>2</sup> from an infected individual.

The outbreak response steps are based on the four 'C' principles:

- Contact *tracing* – data analytics using smart apps
- Contact the *suspects*, test them, containment when in doubt
- Contact and treat *positive* patients
- Constant proactive steps: Hand Hygiene, sanitisation, sensitisation and awareness of the general population, social distancing and deep breathing exercises to reboot the immune system.

#### Calamitous virus

The cataclysm of COVID19 is due to the cytokine storm in the lungs that leads to acute respiratory distress, high contagiousness, reverse transmission, temporal patterns of shedding, high reproductive no (R0: 2.2–2.7), stochasticities in the initial phase of the outbreak, low surveillance intensity, carnal origin and its constant transformation into the human host of all age groups<sup>3</sup>. The contrast in the degree of hypoxia ('silent hypoxia') and the pattern of infections in high-risk individuals who are unable to mount a stable immune response with modest symptoms explains the lethal spectrum of the novel coronavirus. The WHO has warned against countries issuing immunity passport, perhaps due to the fear of the second wave of pandemic and insufficient evidence of an immune shield post-treatment.

#### Collapsing economy and health care system

We are now in the nascent phase of emolument and remuneration reduction which may deteriorate to loss of employment across all sectors. This could further leap into the next phase and herald a tsunami of the economy if left unchecked. The 'burn out' of health care workers as they multiply their efforts to combat COVID19 and the increased risk to succumb to infection may accelerate the progression and death of non-COVID ailments.

#### The overlooked 'C'

Immunocompromised oncology patients are at a relatively higher risk<sup>4</sup>.

#### Cardiovascular events

There are several reports on COVID-19 that can directly result in many cardiovascular complications, including fulminant myocarditis, myocardial injury, heart failure and arrhythmia<sup>5,6</sup>. The global shortage of drugs due to the pandemic and diversifying the use of common drugs to test its efficacy against the novel coronavirus has adverse effects and lacks evidence. In contrast, initial data on the role of ACE inhibitors augmenting the onset of severe forms of SARS-CoV-2 infection have discouraged their use and triggered the onset of severe cardiovascular events<sup>7,8</sup>.

#### Children and carrying mothers

The nascent immune system in children may explain the unique spectrum with infants and young children ≤ 5 years more likely to succumb to severe clinical symptoms than older children (i.e. ≥ 6 years)<sup>9</sup>. The decline in the immune activity during pregnancy can increase the risk and could lead to maternal morbidity and death<sup>10</sup>.

#### Covert COVID infections

Asymptomatic carriers and the incidence of false-negative tests have prompted clinicians to consider every patient as COVID positive. Ingestion of anti-pyretic medications to mask the symptoms and avoid detection by thermal scanners in the airport has been on the rise. Case capsules with relevant history narrated by patients are the key to diagnosis; this may now be dubious due to the fear of isolation and delay in proposed treatment as perceived by our patients.

#### C-reactive protein

C-reactive protein levels are non-specific markers that correlate with the level of inflammation, and are not influenced by factors such as age, gender and physical condition. CRP level can gauge the

onset of looming pneumonia and the assessment of severe pulmonary infectious diseases<sup>11</sup>.

### Cognitive illness

Pandemics can spread beyond just the ambit of medicine. The long-term effect of infectious disease cannot be overlooked. It is essential to magnify our collective 'peripheral vision' and contemplate the scale and long-term impact of physical, mental and emotional decline post-survival<sup>12</sup>.

### Community transmission

The adhesive nature of the SARS-CoV-2 capsid S protein propels the disease transmission. The risk and extent of spread with brief contact (<15 min face-to-face contact) or the onset of infection post 14 days of contact to a known infected person (the average maximum incubation period) are low and should not be overexaggerated<sup>13</sup>. The rising infodemic, stigmatisation on COVID19 yields panic and precludes the implementation of epidemic control measures.

A flattened or crushing the curve is not anticipated to change the area under the curve<sup>14,15</sup>. As we foresee this pandemic to prolong and maybe even become endemic, revamping our immune system, adopting a robust health care system and public health measures at the individual, community, national and global levels is the need of the hour.

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