



Letter to the Editor

## Coronavirus disease 2019: The quintessential wave of change and challenge for the norms

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Long ago, Darwin and Spencer concluded “Survival of the fittest”. Following in suit, a perpetual desire to succeed prevailed and pace became the norm for human race. Mankind has been racing against time to clinch the undefined and conquer the universe without cherishing the achieved. Flora and fauna are badly affected due to insatiable encroachment by human greed. Natural habitats have been polluted and a self-destructive mode activated in the name of development. Human values got buried under blind egos. However, the outbreak of coronavirus disease 2019 (COVID-19) pandemic has forced the planet to stop, rethink, and reinstate. The world has been brought to its feet unbelievably by a tiny being, the coronavirus.

An unprecedented, strict lockdown was enforced on our civilization in early 2020 reducing non-essential travels. Manoeuvres only in small distances within or around one’s abode became the new convention. Thus, forcing family members to stay under one roof for longer durations leading to better adjustments, understanding, and discussions directly translating to improved mental health.<sup>[1]</sup> Performing friendly physical activities have also enhanced quality of life, sleep quality as well as standard of living.<sup>[2]</sup> Atmospheric pollution in pre-COVID era was mainly constituted by vehicular emissions, industrial activities, and unchecked crop residue burning especially in underdeveloped world.<sup>[3]</sup> The public curfew observed during COVID times has brought about dramatic improvement in air quality index with significant reduction in respirable particulate matter (PM) including PM<sub>2.5</sub>.<sup>[3]</sup> Morbidity and mortality related to pollution has diminished to new lows as nature got time to rewind itself. Asthmatic flare-ups are directly proportional to air pollution levels and thus there is a dip in these cases as well.<sup>[4]</sup> *Giani et al.* have documented reduction in tens of thousands of premature deaths due to substantial reduction in PM<sub>2.5</sub> during the lockdown period in China and Europe.<sup>[5]</sup> The confining period proved to be a welcome break from the marathon run and highlighted the beneficial effects of soft-peddalling on physical and mental health.

In these COVID times, several alterations in patient management have also been suggested. In coherence with a seven-decade data by *Bake et al.*, it is clear that aerosol generation is least with activities done at tidal breathing. The particle emission increases several folds with loud noise and forceful respiratory manoeuvres.<sup>[6]</sup> Spirometry, the investigation of choice for monitoring pulmonary functions, has been questioned recently for the same reason. The potential utility of oscillometry in this viral pandemic has gained recognition, to explore the lung functions at lowest work of breathing using sound waves, without disturbing the internal milieu much.<sup>[7]</sup> Yet another interesting message is to be less intensive in-patient management and hold guard in stressful situations. Use of timely non-invasive respiratory support (continuous positive airway pressure and high flow nasal oxygen) proved more rewarding than breaching the airway defense during

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parenchymal involvement.<sup>[8]</sup> Minimal displacement of opened alveoli, with lower tidal volume is more beneficial, than higher stress and strain imposed during large volume conventional ventilation in cases with higher severity.<sup>[9]</sup> The current pandemic has reiterated benefits of physiological principles in life, for example, soft speaking and minimal stretching.

COVID-19 has also highlighted the importance of attaining right balance using minimal energy expenditure. An intense inflammation during active infection or hyperimmune response during the convalescent phase, both are detrimental to health. Minimizing the pathological reactions seems ideal option during extreme phases of disease. Systemic steroids downregulate the inflammatory markers and limit the process during active COVID pneumonia.<sup>[10]</sup> Intravenous immunoglobulins, along with other immunomodulators, have been suggested as preferred option to resolve inflammation in post-COVID multisystem inflammatory syndrome.<sup>[11]</sup>

There has also been an exponential surge in telecommunication over past few months. This technological spurt was the result of forced restrictions imposed on mankind. Telemedicine found its way to the remotest areas and fulfilled the void between care givers and indigent.<sup>[12]</sup> The platform of tele-education has gained popularity in leaps and bounds globally and this has diminished the international boundaries and brought knowledge at the door step of every individual.<sup>[13]</sup> The current era of virtual meetings is more economical, feasible, and faster than the mandatory physical communication.

Due to the potential fear of pandemic spread, hygiene practices have been reemphasized, which indirectly help in reduction of communicable diseases and hospital associated infections.<sup>[14]</sup> Coughing, sneezing, and spitting etiquettes are now self-imposed by society that has helped in cleaning the environment.<sup>[15]</sup> It is interesting to note that particles of corona virus move by Brownian motion leading to their self-trapping and elimination through interface filters which they would have otherwise easily escaped with unhurried stride.<sup>[16]</sup> Ironically highlighting that to survive in challenging situations at times lying low or still is important.

Amidst many adverse effects of the natural disaster, COVID-19 has taught us important lessons. Importance of interpersonal and human-environment relationships has been spotlighted. Restricting the desires to the essential could be more beneficial in long term.

#### Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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#### Conflicts of interest

There are no conflicts of interest.

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