COVID-19 INDIA – MYSTERIES, MISERIES and SOLUTIONS

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Summary

On March 11, the GOI declared Covid 19 as an epidemic with dubious data, simultaneously invoking the epidemic law 1897. People are hardly aware that, as compared to the European Nations and US, the Indian pandemic is mild. Wrong publicity has affected people’s perception. Everyone thinks Covid 19 is a death knell. There is no realization that 97% completely recover. As compared to tuberculosis, which kills 4.5 lakhs people in India, Covid19 mortality is very low. Lockdowns have not been effective as the number of cases as well deaths are rising many folds not only in India but all over the world. On the other hand, it has caused many miseries. Migrant laborers have lost jobs and their families are facing starvation, in different parts of the country. Lockdown, in a way, is anti-poor. There is industrial unemployment and no new jobs may be created. Young job seekers are worst affected. Home quarantine (restricted to homes) is leading to many serious psychological problems. Scientific research has grossly suffered and may be a setback for the ‘Make in India’ dream. Hospital services for other disorders (cardiac by-pass, oncology treatment, etc) are disrupted as all resources are diverted to the Covid pandemic. Herd immunity, which is essential to establish an equilibrium between the host and the parasite, is the only means to permanently overcome any infectious epidemic, Covid 19 is no exception. Lifting of lockdown in phased manner, which is being implemented, would imperceptibly promote intermingling of people essential to develop herd immunity. After the epidemic, Covid 19 will become a part of the repertoire of human pathogenic respiratory viruses and produce sporadic disease. India should develop, on a priority basis a patient-oriented clinical model to deal with sporadic cases.
Background

Covid 19, a new Corona Virus, has caused havoc in many parts of the world. It was declared as a pandemic by the WHO on March 11. Eight weeks later five million people are affected of which more than three hundred thousand are dead, globally. But severity of the pandemic is not even (Table 1). Europe and USA, which have been hot spots right from the beginning, together currently account for 84% and 88% cases and deaths respectively. On the other hand, the number of the cumulative cases and deaths in the two continents - Africa and Oceania- taken together is far less than their daily new numbers occurring in the US and some Nations of Western Europe. Also, there is no death at all in 40 Nations. There is no explanation for these differences.

Table 1: Incidence of Covid 19 cases and deaths in WHO Regions

<table>
<thead>
<tr>
<th>WHO Regions</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>77,295</td>
<td>2,073</td>
</tr>
<tr>
<td>Americas</td>
<td>2,383,124</td>
<td>123,116</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>415,806</td>
<td>10,988</td>
</tr>
<tr>
<td>Europe</td>
<td>2,006,984</td>
<td>173,886</td>
</tr>
<tr>
<td>South East Asia</td>
<td>191,966</td>
<td>5,748</td>
</tr>
<tr>
<td>Western Pacific (without Oceania)</td>
<td>165,335</td>
<td>6,740</td>
</tr>
<tr>
<td>Oceania</td>
<td>8286</td>
<td>123</td>
</tr>
<tr>
<td>Total</td>
<td>5,204,508</td>
<td>337,687</td>
</tr>
</tbody>
</table>

Epidemics are caused by a new agent that produces serious illness and enormous number of deaths. However, these requirements have been removed from the definition. It is alleged that this was done under pressure from the drug and vaccine lobbies. Covid 19 was declared as the pandemic on the basis of only the number of new cases, which in reality meant all those with positive laboratory test, RT-PCR. In infectious disorders a positive laboratory test does not always mean the disease. In the case of the Covid 19, a large majority (95%) of RT-PCR positive cases completely recovers. It is, therefore, not ethical to label them as cases (patients). Also, it is not scientific to use them as the only criteria for an epidemic. However, Covid 19 was declared as a pandemic by the WHO in 114 Nations of which 19 (17%) had only one RT-PCR positive case, mostly imported, and 90 (80%) had no deaths. Declaration of Indian epidemic was equally dubious as there were only 60 cases and no death in a population of 1350 million!

Besides ethics, there are two other major problems in equating RT-PCR test with the disease. There are no clinical or laboratory predictive markers that could identify those with a positive test who will develop clinically significant disease. Therefore, all positive cases will have to be regularly monitored that would unnecessarily increase economic burden many folds. In India it will be 35 times, as the ratio of the positive cases to the dead patients is 35:1. The second issue is that Covid 19 will soon become a part of repertoire of environmental human pathogen and continue to infect fresh people with the result that there will be always a lab test positive person in the community. Therefore, the number of positives will never reach zero, the pandemic will never end and the lockdown would be indefinite, which is just humanly impossible. There is a need for a pragmatic approach, which would focus on clinically sick persons only.

Outcome of a virus infection is decided by a balance of host defenses and viral virulence. The former is very low and the virulence very high at the start of an epidemic, resulting in huge number of
cases/deaths, which progressively decline as the epidemic progresses due to increased host defenses that ultimately lead to herd immunity resulting in a ‘friendly’ equation between the host and the parasite causing sporadic cases. Number of cases/deaths will go down progressively during the decline phase of the epidemic.

There are two feasible preventive strategies. (a) to prevent the host from coming in contact with the bug and (b) improve host defenses (herd immunity) by continuous contact with the bugs. In conformity with the former, many countries, mostly in Europe and a few outside including India, went for the lockdown in the beginning of the epidemic. However, there has been no stopping. India had 434 cases at the time of the lockdown and two months later the cases increased 273 folds (118447). This pattern is seen everywhere without exception and raises serious doubts about the practical utility of this extreme step, which, otherwise, looks very sound on paper. The protagonist of the lockdown, also, cite the example of UK which initially did not go for lockdown. It is said, that mortality was so high that it was forced to go for the lockdown. However, a close look at data tales a different story. Before the lockdown there were 450 new cases per day. Six weeks after the lockdown the figure increased 11 folds (4873 cases/day) in the UK. It is often said that the lockdown is not a cure for the epidemic, but it only delays and reduces the peak so as to give the administration time to reorganize hospital infrastructure to take on the burden. This argument is alright for New York which had huge number of deaths but not for India where the pandemic is mild.

All epidemics follow the Newtonian Principle ‘what goes up must come down’. Covid 19 is no exception. It is now in the declining phase, with progressive reduction in its ferocity. It is time to adopt the alternative strategy of herd immunity, which the permanent solution to the epidemic, globally. Incidentally, Sweden did not go for lockdown but took the path of creating herd immunity allowing free intermingling of people. Brazil also did not impose lockdown. Performance of both the Nations is no worse (Table 2).

Table 2: Cases and deaths in nation with and without the lockdown (Numbers as on May 24, WHO)

<table>
<thead>
<tr>
<th>SN</th>
<th>Nations</th>
<th>Lockdown</th>
<th>Cases number</th>
<th>Deaths</th>
<th>Population In million</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US</td>
<td>yes</td>
<td>1,568,448 (42164)</td>
<td>94,011 (471)</td>
<td>331</td>
<td>4738</td>
<td>284</td>
</tr>
<tr>
<td>2</td>
<td>Spain</td>
<td>yes</td>
<td>235,290 (33089)</td>
<td>28,678 (2182)</td>
<td>47</td>
<td>5006</td>
<td>610</td>
</tr>
<tr>
<td>3</td>
<td>Italy</td>
<td>Yes</td>
<td>229,327 (20149)</td>
<td>32,735 (631)</td>
<td>60</td>
<td>3822</td>
<td>545</td>
</tr>
<tr>
<td>4</td>
<td>UK</td>
<td>Yes</td>
<td>257,158 (6654)</td>
<td>36,675 (335)</td>
<td>68</td>
<td>3782</td>
<td>539</td>
</tr>
<tr>
<td>5</td>
<td>Sweden</td>
<td>no</td>
<td>33,185 (326)</td>
<td>3992 (0)</td>
<td>10</td>
<td>3318</td>
<td>399</td>
</tr>
<tr>
<td>5</td>
<td>Brazil</td>
<td>no</td>
<td>330,890 (34)</td>
<td>21,048 (0)</td>
<td>212</td>
<td>1560</td>
<td>99</td>
</tr>
</tbody>
</table>

(Figures in parentheses denote number before the lockdown. Most of the lockdowns were implemented in 2nd - 3rd week of March 2020).
Indian Scenario:

India adopted the lockdown approach and imposed one of the strictest lockdowns, which still continues but much more relaxed. Despite the lockdown, the number of cases and deaths increased progressively and eight weeks later there were 131,868 (304-fold increase) cases and 3867(430-fold increase) deaths, respectively. The decisions on Covid 19 is associated with a number of mysteries and also miseries. Mystery are decisions with questionable logic. Miseries need no explanation. In both the cases, only a few selected ones are discussed. This article also discuss a plausible solution.

Mysteries

1. Why was Covid 19 declared as an epidemic with dubious data, and the colonial epidemic law 1897 was invoked.
2. The epidemic is very mild in comparison to many other Nations. Yet, the media has been continuously broadcasting the message ‘India is struck by a vicious poisonous (‘visharu’) bug corona which will destroy the Nation. To save yourself and India stay home, do not move out’. The people are terrified and think that the Corona is the death knell.
3. This has created social unrest. Covid 19 cases are stigmatized, so much so that people are afraid of walking close to them. Yet, instead of giving a balanced picture, wrong publicity continues.
4. At the time of the first lockdown there were only 434 cases and 9 deaths due to the Covid 19. The main purpose of the lockdown was to reduce their number significantly. However, after the lockdown there is a progressive increase both in cases and deaths. Yet, the lockdown (lockdown IV) has been extended.

Miseries:

1. It has displaced thousands of migrant laborers in different parts of the country. Many of them have lost jobs and their families, including children, are facing starvation.
2. Lockdown, in a way, is anti-poor
3. There will be industrial unrest and unemployment. Newly employed may lose jobs and new jobs may not be created. Young job seekers are worst affected.
4. Services have been disrupted and travel made costly.
5. People who are quarantined (house bound) develop a wide range of symptoms of psychological stress and disorder, including low mood, insomnia, stress, anxiety, anger, irritability, emotional exhaustion, depression and post-traumatic stress symptoms.
6. Senior citizen are stigmatizes by their relatives.
7. Scientific research has grossly suffered, which may be a setback for the ‘Make in India’ dream
8. Hospital services for other disorders have been badly affected. For example, Cardiac by-pass surgeries have been postponed. So is the case with cancer patients who need treatment immediately.
Plausible Solution

Patient-Oriented Clinical Model: Covid 19 has come to stay with humans. It will soon become a part of the repositories of the human pathogenic viruses, just like what happened to H1N1, and produce only a sporadic disease, especially in senior citizens. The patient-oriented strategies are best suited to deal with sporadic cases. Therefore, as a part of the Corona control measures, India should also develop, simultaneously, a patient-oriented module that involves several issues. Some are given below.

1. The first and foremost is where should the corona patient be admitted - in a general or infectious disease hospital.
2. Should there be special hospitals established for Corona disease. Today, everyone is terrified and that has stigmatised everything associated with Covid 19. People may not even like to go to the hospitals which has Covid patient.
3. Corona infection causes death due to viral lung lesions. Does it mean that all patients with respiratory problems, especially senior citizens, should be first treated only in the infectious disease hospital till the lab test (RT-PCR) is found negative.
4. Status of Social distancing vis a vis the hospital organization. Ideal vs pragmatic should be spelled out.
5. There is a need to develop a good standard treatment protocol
6. Mandatory lab investigations for the disease should be defined.
7. Which patient needs ventilator or every Covid 19 patient should be immediately put on the ventilator. The criteria for taking them on and off the ventilators need to be defined. This is very important, as there are mixed reports on their use.
8. Specific instruction for disposal of dead patient should be defined.
9. Should there be separate medical and paramedical staff for these patients
10. Implications of a positive RT-PCR test should be highlighted for the benefit of patient’s close contacts.
11. Today all beds are earmarked for Covid patients. The patient need to be categorises (Needing Hospitalization (b) treated as the OPD (c) This would realise beds hospitals will be able to start normal functioning

Given the challenge, India’s globally recognised medical expertise could develop a suitable patient-oriented model. This is a golden opportunity for India to create scientific history by creating an Indian patient-oriented clinical model (made in India) that will be used by other nations where the disease is either mild or sporadic.
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