

New Strain of COVID-19 in India, Symptoms, Effects and Natural Therapeutics

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ABSTRACT

Common cold, cough, muscle-aches and fever had been the most prevalent symptoms among the first wave of COVID-19 during the last year, which caused bilateral interstitial pneumonia in the affected persons and caused great damage to the health. But the symptoms during second wave amount to weakness, body ache and mild diarrhoea and even sometimes are non-symptomatic. COVID-19 symptoms have grown milder and have acquired subtle changes to identify the virus during the second wave resulting in higher transmission rate, which makes the treatment difficult, as per medical practitioners in India. Mutated SARS-CoV-2 is emerging in India, the new variant B.1.1.7 with two mutations E484Q and L452R is spreading more easily and quickly than other variants. Around 0.36 million new cases have been recorded on 27th April in India at a seven days average of 0.34 million, with total cases around 18.0 million. The oxygen supply in hospitals and homes is in deficit and lots of casualties have been reported. In India around 200 thousand deaths so far have been reported, since start of this pandemic. The situation is now grave and the new strain is affecting the younger age group with very high rate of deterioration of lungs and pulmonary infections. The need of the hour is taking more precautions, gaining self-immunity and eating immune-boosting nutritious and natural foods and avoiding social contact. The increased vaccination drive will also be helpful in restraining the casualties due to COVID-19 pandemic.

Discussion

COVID-19 cases (second wave) are on a surge around the globe and also in India having 1.3 billion population. The reason identified is the spread of double mutant strain B.1.1.7 along with earlier strains. The new strain affects the younger population in the age group of 18-45 years as compared to earlier strain which affected elderly i.e., more than 58-60 years of age and people with co-morbidities. Corona virus has caused great damage to health and at the same time economic resources [1]. The doctors have warned that the patients testing positive for B.1.1.7 strain will observe throat pain, weakness, mild cough, muscle aches and body fever than those who are infected by the earlier strain. In India people above the age of 45 have already been vaccinated and for younger people the vaccination drive is open from 1st May 2021. A new COVID strain B.1.351 originated in South Africa also. This

strain possesses the capacity to cause Covid-19 in persons already recovered from coronavirus. Another important point about this strain is that it can potentially resist COVID-19 vaccines available till date. So, the upcoming lots of vaccines need to be upgraded to manage/control the detrimental effects of new strains of coronavirus disease in the persons infected. The use of steroidal drugs has also been utilized. The use of these steroidal drugs (anti-viral) like Remdesivir, Lectins etc. at appropriate time can save the lives of patients. It needs to be given to patients who are hospitalised, have a fall in oxygen saturation (below 85-90 %) and have infiltrates on the chest X-ray or CT-scan [2] as shown in Figure 1. If given early before the saturation level (O_2) falls, it has harmful effects. To prohibit COVID-19 from binding to the target cells, use of lectin along with glycans/mannose is recommended [3].

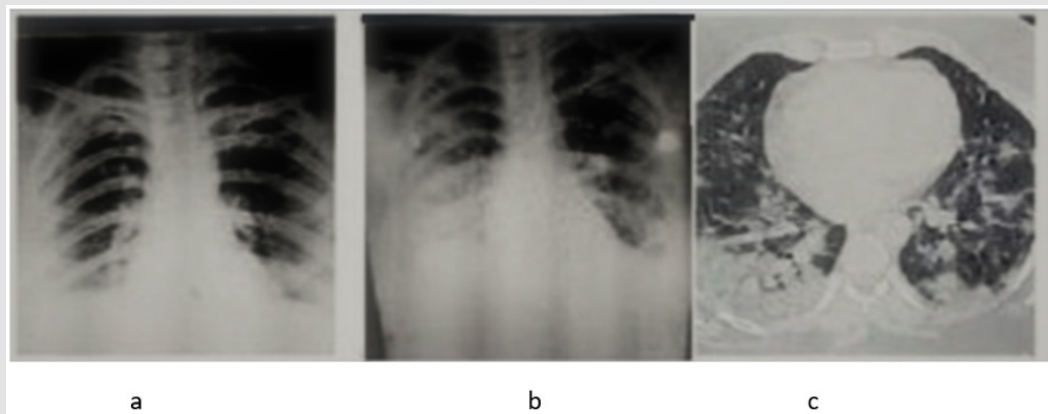


Figure 1:

- a) X-ray on 9th April 2021 showing normal lungs,
 b) Second X-ray on 13th April, 2021 showing big patches and
 c) CT scan on 13th April showing bilateral pneumonia with 80% Infection of a 32-year old female patient of Kota, India (Source Indian daily-Dainik Bhaskar). The infection might be due to the newly mutated strain, as such, fast deterioration of lungs in three days were rarely observed in the earlier COVID-19 strains.

Long Term Effects

It is observed that people get recovered from coronavirus disease in a fortnight or more, but the long-time effects are prevalent even after that. It has been reported that some people experience varied COVID-19 based effects for longer period of time after initial recovery like fatigue, daily tiredness, weakness, loss of stamina. These are identified as long term COVID-19 effects and cause damage to vital organs at the same time. Authentic research studies are being conducted further to investigate the long-term effects of COVID-19.

Natural Therapeutics

Use of natural sources (food materials) for immunity boosting and fruits and vegetable extracts have also been employed to contain corona virus. Plants based metabolites, e.g., withaferin, avicularin, guajaverin and asiatic acid possess maximum binding affinity with all key proteins of SARS-CoV-2 [4]. Identified compounds that can prohibit coronavirus in people are quercetin, isobavachalcone, tryptanthrin, myricetin, scutellarein, silvestrol, caffeic acid, psoralidin, saikosaponin B₂ and griffithsin [5].

Conclusion

The new strain is causing severe illness in many of the patients, and it is sometimes difficult to detect. The optimum strategy can be the use of RT-PCR tests which can detect coronavirus in around 80 per cent of the cases, followed by clinical features and

CT scans/chest X-rays to rule out false negatives in symptomatic patients followed by a repeat test after 24 hours. Vaccination drive must be completed as early as possible in all age groups and ongoing precautions be continued. In this way accurate testing and vaccination can help preventing the rising surge of corona virus.

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Conflicts of Interest

There are no conflicts of interest.

References

1. Lauren L Patton (2021) Viral pandemics and oral health: Lessons learned from HIV to SARS-CoV-2. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology* 131(2): 149-153.
2. (2020) ACR recommendations for the use of chest radiography and CT for suspected Covid-19 infection.
3. Dawood Ghafoor, Sadia Ahmed, Nasib Zaman (2021) Lectins A Hope of Treatment for COVID-19. *Am J Biomed Sci & Res* 12(3): 280-282.
4. Kazi Faizul Azim, Sheikh Rashel Ahmed, Anik Banika, Mostafiqur Rahman Khan, Anamika Deba, et al. (2020) Screening and druggability analysis of some plant metabolites against SARS-CoV-2: An integrative computational approach. *Inform Med Unlocked* 20: 100367.
5. Janice S Mani, Joel B Johnson, Jason C Steel, Daniel A Broszczak, Paul M Neilsen, et al. (2020) Natural product-derived phytochemicals as potential agents against coronaviruses: A review. *Virus Res* 284: 197989.

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