

# Impact of Lockdown, Attitude towards COVID-19 Vaccination and Treatment Modalities among Rural People

Sagnik Mukherjee\*, Sonali Chaudhary

Department of Community Medicine, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi (M), Wardha, Maharashtra, India

## ABSTRACT

Although there were various vaccines available for COVID-19, there is also hesitancy in health care workers, especially students, to get vaccinated. Various surveys have been conducted to assess the hesitancy toward vaccination against COVID-19. In India, more than 10% were hesitant to get vaccinated among the participants. Lack of information concern regarding safety and efficacy are the main reasons for hesitancy. In developing countries like India and others, political manipulation and lack of trust in government bodies are prominent factors of hesitation to get vaccinated. One of the factors for hesitancy towards vaccination is false information regarding the side effects. It is found that most of the information that the students now-a-days get from social media and news rather than from their senior medical faculty. And also due to development of vaccines in such a short time adds to the doubts about the efficiency of the vaccines. The first persons to get vaccinated or trailed at where the medical students are concerned about the efficiency and side effects and Donges. Most medical students are willing to wait and see the results of the vaccines on the first group of people who got vaccinated. Most medical students are hesitant to get vaccinated first before others within 2-3 months of approval. Most medical students appear to think of themselves as test subjects. Hesitancy to get vaccinated as they were the first ones to get vaccinated just after the approval.

**Key words:** Lockdown, Attitude, Vaccination, Treatment

**HOW TO CITE THIS ARTICLE:** Sagnik Mukherjee, Sonali Chaudhary, Impact of Lockdown, Attitude towards COVID-19 Vaccination and Treatment Modalities among Rural People, J Res Med Dent Sci, 2022, 10 (12): 104-108.

**Corresponding author:** Dr. Sagnik Mukherjee

**E-mail:** sagnikmukherjee26@gmail.com

**Received:** 03-Oct-2022, Manuscript No. JRMDS-22-52852;

**Editor assigned:** 07-Oct-2022, PreQC No. JRMDS-22-52852 (PQ);

**Reviewed:** 21-Oct-2022, QC No. JRMDS-22-52852;

**Revised:** 05-Dec-2022, Manuscript No. JRMDS-22-52852 (R);

**Published:** 12-Dec-2022

## INTRODUCTION

SARS-CoV-2 is spread through the Coronavirus (COVID-19). Most people diagnosed with the viruses may have minor to medium pulmonary problems and heal with no treatment. On the contrary side, some may fall unwell and demand hospital attention. Individuals above 65, including existing chronic disorders including cardiac sickness, mellitus, persistent pulmonary sickness, or malignancy, are more likely to experience severe disorders. COVID-19 may leave anybody unwell, as well as maybe people could develop seriously ill or expire at any time [1].

Knowing everything there is to know about the disease, including how it transmits from one person to another, is the most excellent method to obstruct and impede transmitting. Keep a minimum 1 meter distance from people, wear a mask that should be well fitted and wash your hands with soap and water or use an alcohol based

hand sanitizer periodically to prevent infection. One should get vaccinated as one's turn comes and follow the instructions [2].

An infectious individual might transmit this virus when he spits, coughs, or sneezes, talks, chants, blows, tiny fluid droplets through his oral cavity or nostrils. Such particulates range in size from more significant pulmonary drops to tiny particulates. It is crucial to practice breathing hygiene, including coughing against your bent elbows and confine yourself to your house till patients sound well. COVID-19 does have a variety of effects according to the individual. About bulk of affected individuals will have minor to medium symptoms and should recuperate without needing to be admitted to the medical facility [3].

Several studies conducted worldwide provide clear proof for direct renal infection in COVID-19 patients. The urine sample of COVID-19 patients in the 2<sup>nd</sup>-3<sup>rd</sup> week expressed viral fragments indicating the onset of Acute Kidney Injury (AKI). ACE-2 receptors are expressed in many brushes border cells, lesser in podocytes, and absent in mesangial and glomerular endothelial cells. Therefore, the proximal tubule is susceptible to significant damage like acute tubular necrosis [4].

The pathogenesis of AKI in COVID-19 patients was explained in several studies: Conversion of angiotensin II to angiotensin I-VII is very important. It controls harmful effects like vasoconstriction inflammation and thrombosis. This conversion is done by ACE-2 (soluble or insoluble form). As entry of SARS-CoV-2 causes a significant depletion in the ACE2, conversion of Ang II to Ang I-VII does not occur, subsequently increasing Ang II level and decreasing Ang I-VII levels in the body of COVID-19 patients. The body loses its control over those above mentioned hazardous effects. The increased Ang II binds to angiotensin receptors type 1, leading to coagulation, pulmonary inflammation and AKI [5].

COVID-19 patients with AKI also exhibit proteinuria and haematuria. The most common sign of kidney dysfunction in COVID-19 patients is mild to moderate proteinuria. There is increased filtration of plasma proteins in the glomeruli. This is due to the direct damage of podocytes in the glomerular apparatus and alterations in RAAS caused by the virus. Increased protein excretion can also be due to tubular injury caused by the virus [6].

In an autopsy followed by light and electron microscopic examinations of renal tissues of dead COVID-19 patients, Evan A Farkash, Allecia M Wilson, and Jeffrey M Jentzen, seven of the 26 dead patients expressed the presence of SARS-CoV-2 in renal tubular epithelium. They observed tubular isometric vacuolization with light microscopy and double membrane vesicles containing vacuoles with electronic microscopy. They suggest this to be a histological marker for direct renal infection [7].

Diao and colleagues gave another strong proof of direct kidney infection in COVID-19. They could find the accumulation of SARS-CoV-2 antigens in the kidney tubules when they examined the viral nucleoplasm protein in situ in a kidney post mortem [8].

In COVID-19 pneumonia, a study was conducted in Tongji hospital, China. Of those patients whose urine dipstick analysis was studied, 75.4% showed abnormal results [9].

## LITERATURE REVIEW

### India and worldwide status of Coronavirus as pandemic

On January 30, 2020, the World Health Organization proclaimed COVID-19 a global public health emergency. On the same day, reporting and diagnosing on India's initial Coronavirus affected people had done. WHO labelled it a pandemic on March 11, 2020? Over 3 million people have died due to the 145 million cases worldwide. As of April 25, 2021, 16 million people in India had been afflicted, with 189000 deaths. The pandemic significantly strains India's health infrastructure, particularly its second wave. Infections with COVID-19 during pregnancy are not were not understood [10].

COVID-19 has been confirmed in 241,886,635 people, with 4,919,755 deaths, according to the World Health

Organization. There have been 6,655,399,359 vaccination doses provided as of October 20, 2021. Mucormycosis has an incidence rate of 0.005-1.7 per million people worldwide. Mucormycosis is projected to affect one hundred and forty individuals per million in India, roughly eighty times more than in prosperous countries. Death was documented in 389/851 (46%) of individuals in a systemic review and meta-analysis of 851 case reports published in 2018. Patients with disseminated mucormycosis (68%) had the most significant case fatality rate, whereas those with the cutaneous disease had the lowest (31%) [11].

### COVID-19 vaccination recommendation and side effects

COVID-19 vaccine recommendations in maternal care cannot be overstated. Every year, about 50 million Indians will be influenced by this advice (depending on 25 million births per year and an equivalent quantity of people in the prenatal and postpartum phases). According to the ministry of health and family welfare of the Indian government, immunizations are currently discouraged during pregnancy and lactation. This is predicated on the reasonable premise that there is insufficient information to assure pregnant women's safety. India's product literature states the same thing. Given that vaccination in India began as a "trial mode," this is particularly notable. Based on mounting data from throughout the world, it may be time for a change to include pregnant and lactating women in the immunization program. Individual practitioners in India are prohibited from recommending immunization to pregnant or lactating women unless the ministry of health and family welfare has permission [12].

Pregnant and breastfeeding women and the general public should avoid vaccination in the following situations: A previous dosage of COVID-19 caused an anaphylactic or allergic reaction with an immediate or delayed start, anaphylaxis, or allergic reactions to vaccines, injectable therapies, pharmaceuticals, food and other substances. For the time being, in the following circumstances: If you have been diagnosed with Coronavirus, wait 12 weeks after contamination or 4 to 8 weeks after recovery. Coronavirus has manifested itself in the form of active symptoms. Medication for COVID-19 virus with anti COVID-19 monoclonal antibodies or convalescent plasma keenly unwell individuals that are gotten hospitalized to the institution because of almost any cause [13].

### Treatment

Elimination of cortisone medication, controlling blood sugar levels, comprehensive removal of dead tissues from the body and antifungal medications are the gold standard for excellent care in terms of management [13].

Liposomal amphotericin B is given initially, the dose is five milligrams per kilogram of the body weight and if there is the involvement of the central nervous system is present, and then the dose is ten milligrams per kilogram

of the body weight. This is the preferred treatment modality. Each vial has fifty milligrams inside it. It must be diluted with 5% or ten percentage dextrose; regular saline or ringer lactate is incompatible. It should be maintained there until the disease has stabilized and a positive response has been established, which could take a couple of weeks after this patients can switch to oral Posaconazole (three hundred milligrams delayed release tablets twice daily for one day, which was followed by three hundred milligrams daily) or as alternative Isavuconazole (1 tablet of two hundred milligrams thrice a day for two days which was followed by two hundred milligrams daily) [14].

The treatment must proceed until the symptoms and signs of the disease, as well as the disappearance of active illness radiological signs and the complete removal of pre-existing factors that are at risk like high blood sugar, immunosuppression, and other predisposing risk factors, have been resolved; this could take a long time [13].

### DISCUSSION

The experiment proves that two out of ten students in the sample were vaccine hesitant despite the increase in the probability of getting infected by the COVID-19. This is opposite to previous studies show risk perceptions are a central predictor of protection intention and health care behaviour. There are mainly five contributing factors for the hesitancy towards the COVID-19 vaccination. These include concerns about side effects. Secondly, there is a lack of trust in the information provided to the health care workers and students by the public health workers and the drug companies. In addition to this, there are comments and rumours in public and among the medical/university students about the politicization of the vaccines, and there is also a need for transparency from the government and drug manufacturing companies, mostly there are discourse about the way and that which the vaccines are being approved and given to the people. The most crucial factor is being the first one to get vaccinated. We already know the facts that there is a leak of trust in the government and importantly there is misinformation mainly contributing to the rates of acceptance among the medical health workers and medical students against COVID-19 vaccination.

This is the most common cause. The university also had concerns about how the vaccine affects this examination as they are close to this examination. To add to this, medical students' lack of consent for data registration for COVID-19 vaccination is also observed. Experimental findings also revealed that they matched the health belief model results about the increase in the students' susceptibility nowadays as of previously mostly the affected people are old aged people. The increased rates of COVID-19 positivity in young teenagers help in vaccine acceptance among university students. Despite the concerns about vaccinations, students get vaccinated either way. This shows that acceptance is not voluntary. It appears that the positivity towards the vaccination by the students might be due to the pressure by the university

and their authorities. Accepting COVID-19 vaccination in a subjective norm and pressure of social can termites influences some hesitant students to get vaccinated finally. Most of the people getting vaccinated were influenced by the fact that being vaccinated means fewer restrictions and that the norms works are resuming and they're a core resumption of face to face classes and bringing these lives back on track [15].

This vaccination also helps build confidence among the students as this is getting back to normal and helps in lending restrictions on this lifestyle during pandemics. At the same time, some believe that vaccination does not change anything in their lifestyles. Despite there being hesitancy, a study against the COVID-19 among medical students also highlights the importance of education to enhance knowledge about COVID-19 vaccine. It also shows that the medical students who were previously vaccinated had a positive attitude towards the COVID-19 vaccination. It is also hoped that they help spread positivity towards the vaccination and encourage vaccination. The health system needs to achieve high COVID-19 vaccination coverage among the frontline workers and medical students as soon as the vaccine is available to ensure adequate people and workforce to treat other people. All the health care workers are to be well equipped with the knowledge of how to handle vaccine hesitant people and respond quickly to any adverse effects of vaccination. With the wide availability of smartphones, the internet and social media, though this can be a great advantage, it can work as a distraction tool and self-education. It also provides a platform for spreading false information and misleading people to false conceptions. And publications of the matter regarding vaccine in more scientific words and spreading of data regarding the vaccine in the scientific characters also rounder's the ability of uneducated and aural people to it and which leads to vaccine reluctance government should owl case documents officially on the side effects of the vaccine so that people are not prone to false information and are misled [16].

There is also more concern about the side effects that have occurred coincidentally in one or two people among the racks of vaccinated people daily. There can be no medicine or vaccine that works at WHO's. Efficacy suits all people. It is common for some people to get side effects, but the advantages over disadvantages should be considered. People are also more concerned of their age. People over 60 years or less are more reluctant to get vaccinated as they feel that their bodies will not react positively to the vaccine and are willing to take chances. In countries like India, we elect one of getting tested for COVID-19 is very low, and political influence on the publication of the numbers of people getting positive is strong. There is also a problem regarding the population in countries like India. There is no proper track of people and where they live, which helps people escape the vaccination. It is also difficult for the government to handle such a large population. Physicians and established doctors and hospitals play a big time role in the public acceptance of the COVID-19 vacation. They can

easily influence the patients and students as the medical students mostly get their knowledge from these seniors and professors. The Public also puts a lot of trust in doctors than the government. As stated by many experts, doctors interacting with their patients in the clinics and OPD should be confident and optimistic about the Safety of the vaccination by the medical students and workers. As they are the people everyone comes to about their health problems, they should be more confident about their stuff [17-25].

Our overview had the restriction directed after COVID-19 inoculation had begun in some clinical schools. In this way, it might have disparaged the underlying immunization reluctance of the people who changed over to the antibody acknowledgment bunch and were eventually inoculated. Since interest in this study depended on shared correspondence through web based media organizations, the denominator for estimation of reaction rate is still up in the air. Because of the non-likelihood examining approach, the generalizability of immunization aversion among clinical understudies across India should be additionally educated by the nearby setting. We likewise didn't explicitly get some information about logical diaries as a wellspring of immunization data. Even though we caught understudies' reactions through open remarks, the online method of information assortment regularly neglects to catch the profundity of data which could make some way or another have been conceivable through subjective techniques applied in *vis a vis* settings [26-32].

### CONCLUSION

Considering the limitations, this research also shows vaccination hesitancy against COVID-19. This research also highlights that the current situation needs a new curriculum, including the vaccine's information and skills to motivate others to get vaccinated. History shows that people who have taken vaccines previously are coming forward without hesitation to get vaccinated. This provides hope and encouragement for others to get vaccinated. Health systems need to achieve high COVID-19 vaccination coverage rates among frontline HCPs, including medical students, as soon as a vaccine is available to ensure an adequate workforce to treat patients. Their responsibility is to train HCPs to make strong vaccine recommendations and respond effectively to vaccine hesitant persons. Future research should focus on practicing physicians, nurses, dentists and students associated with these disciplines. These professions are involved in direct patient care and could make vaccine recommendations.

### REFERENCES

1. Daniel J. Education and the COVID-19 pandemic. *Prospects* 2020; 49:91-96.
2. Watkins J. Preventing a COVID-19 pandemic. *BMJ* 2020; 28:368.
3. Lone SA, Ahmad A. COVID-19 pandemic an African perspective. *Emerg Microbes Infect* 2020; 9:1300-1308.
4. Lancet T. India under COVID-19 lockdown. *Lancet* 2020; 395:1315.
5. Rawal V, Kumar M, Verma A, et al. COVID-19 Lockdown. *Social Scientist*. 2020; 48:67-82.
6. Mendhe D, Wankhede P, Wanjari M, et al. Mucormycotic osteomyelitis of maxilla post-COVID patient: A case report. *Pan Afr Med J* 2021; 39:275.
7. Wanjari MB, Mendhe D, Wankhede P, et al. Social Responsibilities in COVID-19: Pandemic. *J Pharm Res Int* 2021; 149-153.
8. Di Domenico L, Pullano G, Sabbatini CE, et al. Impact of lockdown on COVID-19 epidemic in Ile-de-France and possible exit strategies. *BMC Med* 2020; 18:1-13.
9. Lau H, Khosrawipour V, Kocbach P, et al. The positive impact of lockdown in Wuhan on containing the COVID-19 outbreak in China. *J Travel Med* 2020; 27:taaa037.
10. Yang L, Liu S, Liu J, et al. COVID-19: Immunopathogenesis and immunotherapeutics. *Signal Transduct Target Ther* 2020; 5:128.
11. Joshi S, Parkar J, Ansari A, et al. Role of favipiravir in the treatment of COVID-19. *Int J Infect Dis* 2021; 102:501-508.
12. Stasi C, Fallani S, Voller F, et al. Treatment for COVID-19: An overview. *Eur J Pharmacol* 2020; 889:173644.
13. Rismanbaf A. Potential treatments for COVID-19; a narrative literature review. *Archives of academic emergency medicine*. 2020; 8:e29.
14. Prabhu RM, Patel R. Mucormycosis and entomophthoromycosis: A review of the clinical manifestations, diagnosis and treatment. *Clin Microbiol Infect* 2004; 10:31-47.
15. Auluck A. Maxillary necrosis by mucormycosis: A case report and literature review. *Med Oral Patol Oral Cir Bucal* 2007; 12:360-364.
16. Kontoyiannis DP, Lewis RE. How I treat mucormycosis. *Blood* 2011; 118:1216-1224.
17. Ibrahim AS, Spellberg B, Walsh TJ, et al. Pathogenesis of mucormycosis. *Clin Infect Dis* 2012; 54:S16-22.
18. Acharya S, Shukla S, Acharya N, et al. Gospels of a pandemic a metaphysical commentary on the current COVID-19 crisis. *J Clin Diagn Res* 2020; 14:OA01-OA02.
19. Arora D, Sharma M, Acharya S, et al. India in "flattening the curve" of COVID-19 pandemic triumphs and challenges thereof. *J Evol Med Dent Sci* 2020; 9:3252-3255.
20. Bawiskar N, Andhale A, Hulkoti V, et al. Haematological manifestations of COVID-19 and

- emerging immunohaematological therapeutic strategies. *J Evol Med Dent Sci* 2020; 9:3489–3494.
21. Burhani TS, Naqvi WM. Tele health a boon in the time of COVID-19 outbreak. *J Evol Med Dent Sci* 2020; 9:2081–2084.
  22. Butola LK, Ambad R, Kute PK, et al. The pandemic of 21<sup>st</sup> century COVID-19. *J Evol Med Dent Sci* 2020; 9:2913–2918.
  23. Dhok A, Butola LK, Anjankar A, et al. Role of vitamins and minerals in improving immunity during COVID-19 pandemic-A review. *J Evol Med Dent Sci* 2020; 9:2296–2300.
  24. Gawai JP, Singh S, Taksande VD, et al. Critical review on impact of COVID 19 and mental health. *J Evol Med Dent Sci* 2020; 9:2158–2163.
  25. Khubchandani SR, Dahane TM. Emerging Therapeutic Options for COVID-19. *J Evol Med Dent Sci* 2020; 9:3082–3085.
  26. Kolhe S, Dambhare M, Dhankasar P, et al. Home remedies during COVID pandemic lockdown. *J Res Med Dent Sci* 2020; 8:103–107.
  27. Pate BS, Yeola ME, Gawande A, et al. Best practices for endoscopic procedures in COVID-19 pandemic. *J Evol Med Dent Sci* 2020; 9:3760–3766.
  28. Patel A, Patel S, Fulzele P, et al. Quarantine an effective mode for control of the spread of COVID-19? A review. *J Family Med Prim Care* 2020; 9:3867–3871.
  29. Singh N, Anjankar AP, Garima S. The urgent need to understand COVID-19 associated coagulopathies and the significance of thrombotic prophylaxis in critically ill patients. *J Evol Med Dent Sci* 2020; 9:2381–2385.
  30. Spoorthy MS, Pratapa SK, Mahant S. Mental health problems faced by healthcare workers due to the COVID-19 pandemic-A review. *Asian J Psychiatr* 2020; 51:102119.
  31. Jakhar D, Sharma A, Kaur I, et al. Indian dermatologists wield technology to combat COVID-19. *Indian Dermatol Online J* 2020; 11:991–994.
  32. Kute V, Guleria S, Prakash J, et al. NOTTO transplant specific guidelines with reference to COVID-19. *Indian J Nephrol* 2020; 30:215–220.