



Study of Post Covid-19 Complications Based on Epidemiological Survey

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ABSTRACT:

The COVID-19 era officially began in 2019. Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) is another name for it. The number of infections continues to rise even after COVID-19 immunizations. Patients who are afflicted have the most typical symptoms, including fever, weakness, coughing, and loss of taste and smell. The symptoms that are least often are a sore throat, headache, diarrhoea, aches and pains, etc. Age, sex, comorbid diseases, duration and year of COVID-19 infection, acute COVID-19 characteristics, history of hospitalization (type & severity of disease, length of hospital stay, need for respiratory supports, and need for intensive care unit [ICU]), duration since symptoms began, presence of persistent symptoms and vaccination were the details about the patients that were included in the questionnaire. The causes of receiving medical aid and the causes of being readmitted to the hospital were both questioned. This investigation includes a 100-person epidemiological survey on "Post COVID Complications" over one month. In conclusion, our survey and the data from the study indicate that among 100 people, more females than males had COVID-19 infection. The most frequent side effects following COVID-19 were loss of taste (54%), loss of smell (44%), weight loss (28%) and other issues. We deduced from the facts and statistics that people were somewhat aware of post-COVID-19 complications.

Keywords: COVID-19, Epidemiological survey, Post COVID Symptoms, Loss of smell, Sore throat.

INTRODUCTION

The year 2019 marked the beginning of COVID-19. It is also known as Severe Acute Respiratory Syndrome CoronaVirus (SARS – CoV). Even after vaccinations against COVID-19 the number of people infected goes on increasing. The infected patients show most common symptoms such as fever, weakness, cough, loss of taste and smell etc. The least common symptoms include sore throat, headache, diarrhoea, aches and pains etc. The symptoms of acute COVID-19 are shortness or difficulty in breathing, loss of speech or mobility or confusion, chest pain. These patients require hospitalization and some serious cases may even lead to death. The recovery from COVID-19 takes about 1 week to 4 week depending on individuals; it is also followed by some post COVID-19 complications in most people [1].

Long-term breathing issues, cardiac issues, chronic renal damage, stroke, and Guillain-Barre syndrome, a condition that causes momentary paralysis, are a few examples of long-term health impacts that may occur in some individuals. After receiving COVID-19, some adults and kids develop multisystem inflammatory syndrome.

Post COVID symptoms are also known as "long COVID", "post acute COVID syndrome" and "post – acute sequelae of SARS – CoV-2 infection". The exact cause of post COVID-19 conditions is not well understood. But it is hypothesized to be secondary to virus specific patho-physiological changes, prolonged inflammatory responses to acute infection and sequelae of post intensive care illness. Even people who did not have symptoms in the days or weeks after they were infected can have post COVID-19 conditions. These post COVID complications present as different types and combinations of health problems for different lengths of time. Increased risk of seeing these symptoms are in older patients who have underlying health conditions [2]. The post COVID-19, makes conditions serious for people with heart problems, diabetes, blood pressure, respiratory troubles etc. way before COVID. Post COVID complications include fatigue, loss of taste and smell, weight loss, muscle aches, difficulty in breathing, confusion etc [3].

OBJECTIVES

- To conduct a survey on POST COVID-19 Complications.
- To collect data on diseases and their distribution in the population.
- To correlate the diseases/complications with respect to age group.
- To propose positive preventive measures for POST COVID-19 Complications.

MATERIALS AND METHODS

- **Study Area:**

Nashik Municipal Corporation (NMC) Zone.

- **Study topic:**

Post COVID-19 Complications

- **Sampling size:**

100 individuals from Nashik Municipal Corporation (NMC) Zone.

- **Study duration:**

The period of the data collection for this study was two years (2020 to 2021).

- **Study Methods:**

We conducted this observational study online to conduct quantitative study based on epidemiological survey on POST COVID-19 Complications. Study was conducted as analysis of POST COVID-19 complications seen in individuals, to relate it with respective age groups and propose preventive measures for complication based on Data collected from individuals who have suffered from COVID -19 in the last 2 years (2020-2021).

The information about the patients included in the questionnaire were age, sex, duration and year of COVID-19 infection comorbid diseases, characteristics of acute COVID-19, history of hospitalization (type & severity of disease, length of hospital stay, need for respiratory supports, and need for intensive care unit [ICU]), duration since symptoms onset, presence of persistent symptoms by systems, and knowledge about outpatient clinic visits after recovery, vaccination status. Information was asked about the reasons for medical assistance and reasons for re-hospitalisation. Recovered patients after acute COVID-19 illness may continue to experience various signs and symptoms including fatigue, body ache, cough, sore throat, difficulty in breathing, etc.

The Questionnaire was designed keeping in mind the objectives of the survey. The Google Forms of the Questionnaire of were circulated amongst target individuals online.

Questionnaire for the survey

1. Name
2. Sex
3. Age
4. Have you suffered from COVID more than once?
5. When did you suffer from COVID?
6. How long (number of days) did you experience the above symptoms?
7. **Which of the following symptoms did you experience post COVID?**
 - Respiratory symptoms
 - Neuropsychiatric disorders
 - Dermatological symptoms
 - Gastrointestinal disorders
 - Loss of smell
 - Loss of taste
 - Weight gain
 - Weight loss
 - None
8. How long did you experience the above symptoms?
9. Where you admitted to the hospital?
10. Did you suffer from any of the following diseases before you were diagnosed?

- Diabetes
 - Heart disease
 - Kidney disease
 - High blood pressure
 - Low blood pressure
 - Thyroid
 - None
11. What were your persistent symptoms after COVID?
- Fatigue
 - Loss of weight
 - Weight gain
 - Cough
 - Loss of taste
 - Loss of smell
 - None
12. Were you vaccinated before being diagnosed with COVID? Yes/No
13. If yes, which vaccine?
- Covishield
 - Covaxin
 - Sputnik
 - Other
14. If vaccinated, how many doses did you take?
- 1
 - 2
 - Booster dose
15. Where you aware of the post COVID complications?

The Secondary data analysis was evaluated from the information collected by the above online questionnaire. Acute COVID-19 disease severity of patients was recorded as mild to moderate, severe, and critical illness based on WHO COVID-19 technical guidelines.

ANALYSIS OF DATA

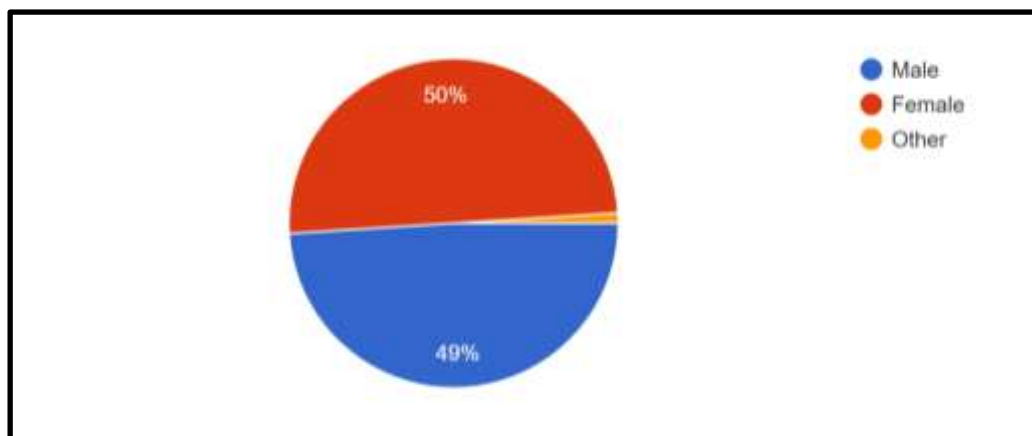


Figure No. 1: Proportion of population for study as per sex

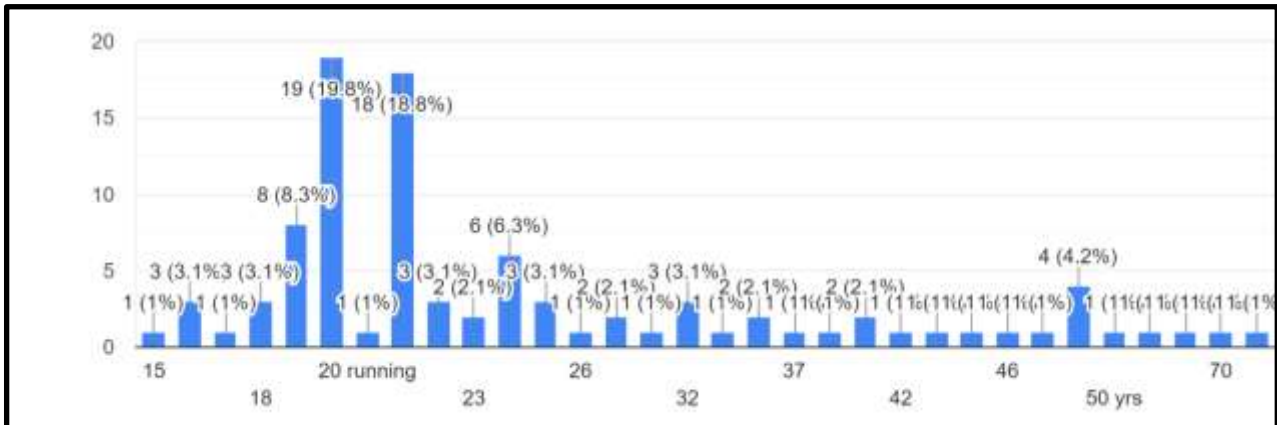
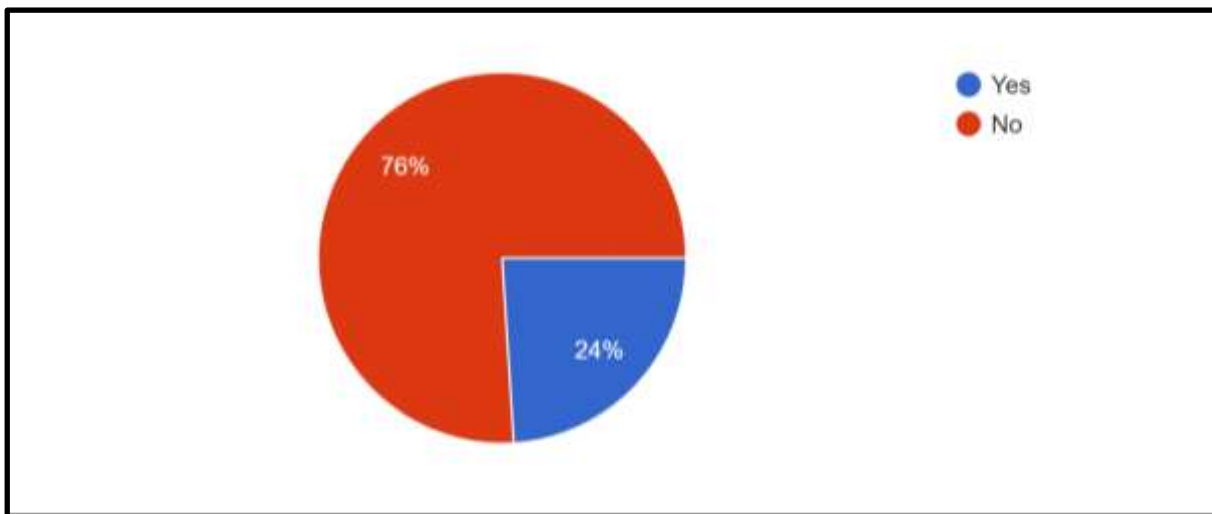


Figure No. 2: Proportion of population for study as per age



Figure

No. 3: Frequency of patients re-suffering from COVID-19

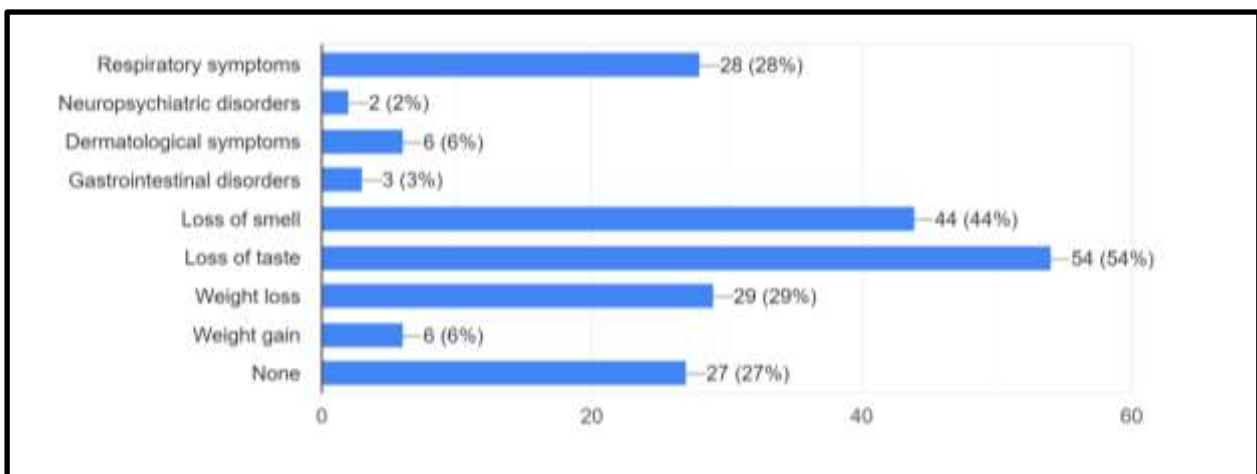


Figure No. 4: Post Covid-19 Symptoms seen in the patients

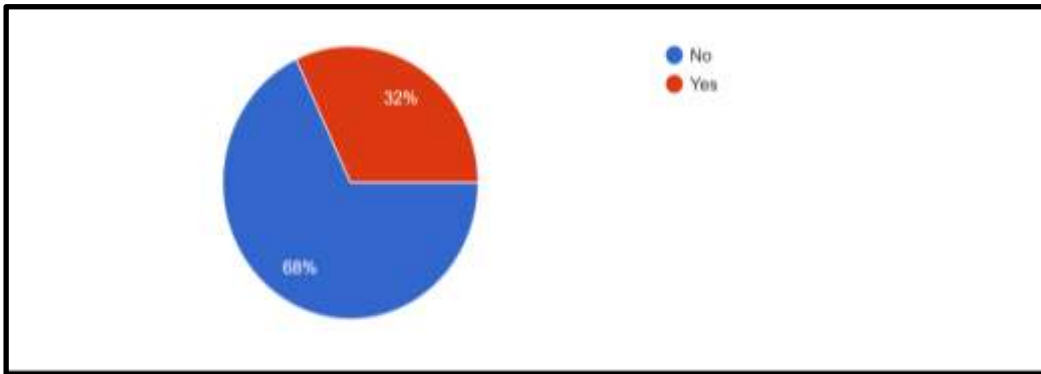


Figure No. 5: Status of patients for hospitalization

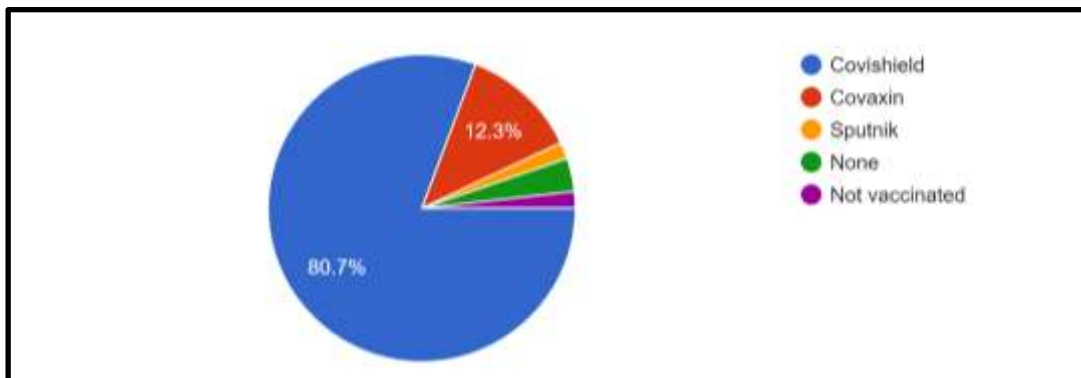


Figure 6: Status of vaccination and Types of vaccine

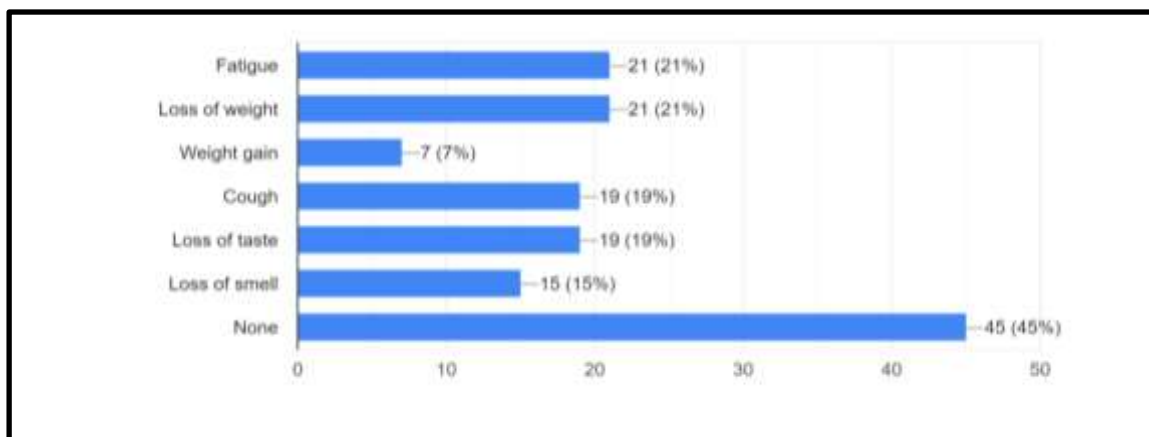


Figure No. 7: Recovery status and Symptoms of Post-Covid-19 complications

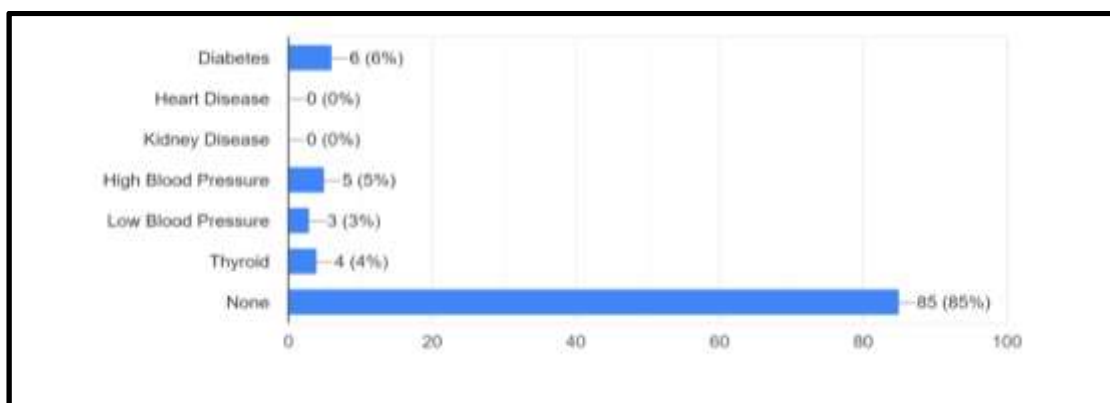


Figure No.8: Status of patients suffering from co-morbidity

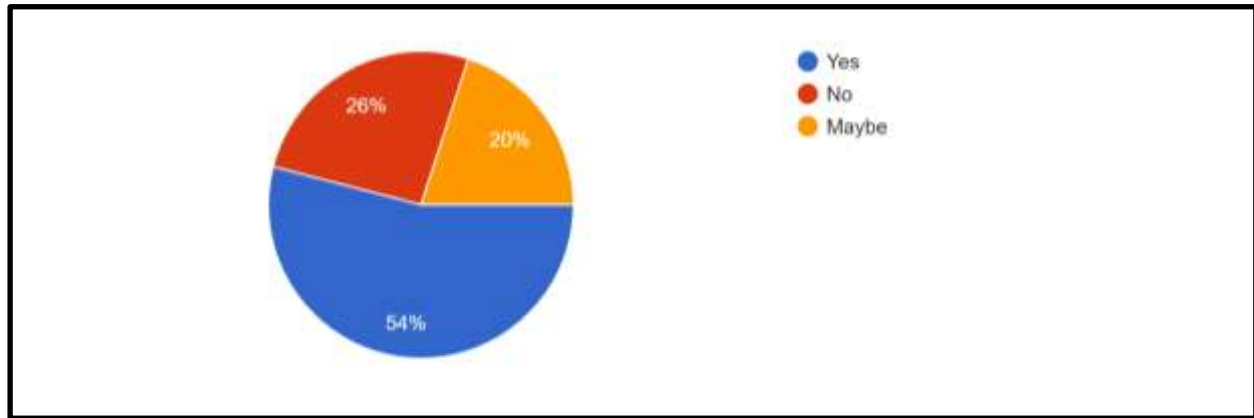


Figure No. 9: Awareness about post Covid-19 symptoms amongst patients

RESULTS AND DISCUSSION

This study included an epidemiological survey on “Post COVID Complications” of 100 individuals with a period of 1 month. In summary, our survey and data collected from the study shows that amongst 100 individuals, more females contradicted more COVID-19 infection than males. The most commonly reported complications post COVID-19 were loss of taste (54%), loss of smell (44%), weight loss (28%) etc.

Study shows that people also get infected after having COVID vaccine and data suggests that people who were vaccinated either with one or two doses showed more milder post COVID-19 general (Loss of taste and smell etc) and president (fatigue, cough, loss of weight etc) complications than those who were not vaccinated. Individuals without vaccination showed more severe infection and needed hospitalization than vaccinated once. From the information and data we observed that people were aware about post COVID-19 Complications to some extent.

From the analysis and data evaluation we can suggest some preventive measures for post COVID-19 complications like;

- Low intensity workout for 5-10 minutes a day, jogging, walking etc.
- According to the guidelines of the Health Ministry of India, one can perform Breathing exercises like Pranayam, Yoga and use Ayurvedic medicine to cure as per symptoms.
- One should include a more healthy diet which includes green, leafy vegetables, Citrus fruits etc to boost your immunity etc.
- Other precautions include staying hydrated, drinking plenty of fluids, meditation etc.

CONCLUSION

After the finalization of the topic for epidemiological survey on “post COVID-19 complications' the questionnaire was prepared. The survey states that the most commonly reported complications post COVID-19 were loss of taste (54%), loss of smell (44%), weight loss (28%) etc. In the study it was reported that 76% of individuals had not suffered from COVID-19 more than once. If we look at this survey it has been noticed that the people were not hospitalized, were vaccinated and there was speedy recovery. The post COVID-19 complications were not persistent. The respondents were not having any co-morbidities like (Diabetes, Hypertension, Blood Pressure etc.) which helped them to recover quickly. The people were aware of post COVID-19 complications through overcoming the scenario.

From this epidemiological survey we could get frequency and comparative study accounts of different post COVID-19 complications. And also we got the knowledge of disease and its distribution in the population and age group, important precautions and preventions etc.

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