

Alarming symptoms in COVID-19 omicron variant, Karimnagar, Telangana

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Abstract:

We aimed to compare the present-day clinical symptoms associated with the Omicron variant to previous variants of COVID-19 that contributes to research on the omicron variant about clinical characteristics and patient outcomes. We have done an Observational study on the respondents who have undergone COVID-19 RT-PCR in December 2021 and tested positive were treated in home isolation through 24/7 telemonitoring with their asserted consent in written with previous vaccination. Symptomatic patients have been advised medication under physician guidelines. In addition, we observed the Socio-demographic profile and clinical characteristics. Based on our results, the symptoms of body pains and night sweats were more dominant than the loss of taste and sense of smell. The study also stated that zero percent of the patients with a history of smell and taste were affected by the covid 19 infection omicron variant.

The literature stated that loss of smell and taste was the main symptom of corona first and second waves. But, our study showed none of the respondents reported the loss of sense of smell and taste. Hence overall results stated that body pains and night sweats are the dominant identifiable symptom of Omicron variant; thus, early detection and home isolation, complete vaccination, avoiding public gatherings, all the possible preventive measures for strict implementation and to control the COVID appropriate behaviors such as practicing hand sanitization, social distancing, and wearing face masks, can break the chain and further spread of the virus.

Keywords: COVID-19, Omicron Variant, RT-PCR

Introduction:

In the last two years into the coronavirus pandemic, COVID-19 spread in the community with different variant mutations like alpha, Delta, Omicron (variant B.1.1.529).As of February 6, 2022. 4.2 crore cases and 50 lakh deaths were reported covid cases in India. In addition, a new variant of Omicron 8209 patients has been reported [1, 2]. Due to all these variants, morbidity and mortality rise in India and many other countries. Despite well-established health care systems and availability of different types of effective vaccines and conducting mass vaccination drive programs in the community, and the availability of novel therapeutics, states are again being overwhelmed with largely unvaccinated people and medically vulnerable patients infected with severe illness. Most of these extreme cases have been due to the Delta variant that has been dominant since May 2021, and the recently identified Omicron variant is rapidly displacing Delta as the most common SARS-CoV-2 variant.

WHO noticed spread of new variant named Omicrom (B.1.1.529) on November 26, 2021, [3]. However, there is no available data stating that infection with Omicron causes more severe disease than infections with other variants, including the Delta virus variant.

A study (Mehraeen et al., 2020) stated that the clinical symptoms of COVID-19 infection, such as sudden loss of taste and sense of smell identified in the patients and recognized as a "significant symptom" presented in the absence of the "usual symptoms" like fever, cough, respiratory failure [4]. Another study((Bangyan Zhang et al.).reported as nigh sweat is also a symptom of covid 19 pneumonia[5]. The effective presentations with covid 19 are fever, dry cough, & generalized weakness. Other symptoms include nasal congestion, runny nose, and diarrhea.

Most of the Delta variant-positive patients reported in April 2020 were hospitalized with Shortness of breath as a significant symptom. In addition, new variant omicron cases are increasing day by day with initial symptoms like sore throat, body pains, running nose, fever.

In our study, we aimed to compare the current clinical symptoms associated with the Omicron variant to the clinical symptoms of previous variants of COVID-19 and contribute to the recent clinical research on the omicron variant about clinical characteristics and patient outcomes. Sixty participants who have undergone tested RT-PCR in January 2022, which shows absent S- genome and indicates Omicron variant. They were treated in home isolation by 24hrs telemonitoring. Based on our results, the symptoms of body pains and night sweats are more dominant than the loss of sense of smell and taste. This study also stated that almost zero percent of the patients with a history of smell and taste are affected by the covid 19 infection omicron variant.

Materials and Methodology:

Study Design: An observational Study

Study Duration: One Month

Sample Size: Sixty participants who have undergone tested RT-PCR in December 2021, which shows absent S- gene and indicates Omicron variant.

Study Place: Karimnagar town

Inclusion Criterion:

- Patients who were ready to participate in the study
- Age above 20 Years (All Vaccinated patients, either first or second Dose)
- RT-PCR positive with missing S gene.

Exclusion Criterion:

- Patients who were not ready to participate in the study
- Age less than 20 Years and Non- Vaccinated patients.

Methods:

Symptomatic patients who contacted us for telemedicine were advised for the RT-PCR. Although the reviewed report showed tested positive and the s gene was missing in the RT-PCR test report, it initially confirmed the omicron variant. Therefore, patients who consented to the study were advised of home isolation with medication under physician guidelines.

Data were collected for the consented respondents with the help of pre-structured questionnaires through the telephonic survey (Average duration of 30 Minutes). Each of the patients followed 24 hours of telemonitoring for 14 days. In addition, the socio-demographic profile and clinical characteristics of the patients were observed and collected.

The pre-Structured questionnaire includes age, sex, occupation, chief complaints like fever, body pains, sore throat, Shortness of breath, loss of smell and taste, night sweats, previous History of covid exposure, History of comorbidities like diabetes, hypertension, thyroid, asthma.

Ethical Clearance: Study approved by Institutional Ethical committee, CAIMS, Karimnagar, Telangana.

Statistical Analysis:

We have the collected data entered in Microsoft excel 2016 for further analysis and descriptive analysis. Qualitative data were presented using frequency and proportion, and Quantitative data were presented using mean and standard deviation. statistical packages for social sciences version 25 used for analysis

Observation & Results:

The objective of this study was to add the focus on newly added clinical symptoms and their role in clinical judgment, severity, diagnosis, and immediate attention to identify the Coronavirus omicron variant.

Table 1: Age distribution of the patients among the gender.

<i>Gender</i>	<i>Frequency(number)</i>	<i>Age</i>
Males	31(52%)	36.38 ±12.26
Females	29(48%)	36.17 ±13.21

Sixty positive home isolated respondents participated in the study and were closely 24 hours Tele- monitored for 14 days. Among 60 respondents, 52% are males, 48% are females, and more than 20 years.

These patients were reported with symptoms fever (43%),cough (28%), cold(33%),headache(42%),body pains(83%), Sore throat(27%),night sweats/Body sweats (85%),Shortness of breath (3%), loss of smell and taste (0%).Among these respondents, 97% of the respondents completed their 1st Dose of the covid vaccine, and 80% were completed their 2nd dose vaccination, which was available in the government healthcare centers. On the other hand, 13% of respondents had a previous history of covid exposure in the first and second Wave and observed no vaccination status.2% of respondents were presented with a comorbid condition like diabetes hypertension. Among the respondents, it was observed that 14 respondents lasted symptoms for1-4 days, 26 were for the 5-6 days,19 were for 7-8 days, and we observed only one patient with a duration of 9 -10 days. These respondents have taken treatment under physician guidelines only, and no one gets admitted to the hospital.

Table 2: Distribution of the clinical Characteristics among the patients.

<i>Clinical Symptoms</i>	<i>Yes</i>	<i>No</i>
Fever	26(43%)	34
Cough	17(28%)	43
Body Pains	50(83%)	10
Cold	20 (33%)	40
Headache	25 (42%)	35
Body Sweats	51 (85%)	9
Shortness of Breath	2 (3%)	58
Sore Throat	16 (27%)	44
Loss of Smell and Taste	0 (0%)	60

Figure 2: Distribution of the clinical Characteristics among the patients.

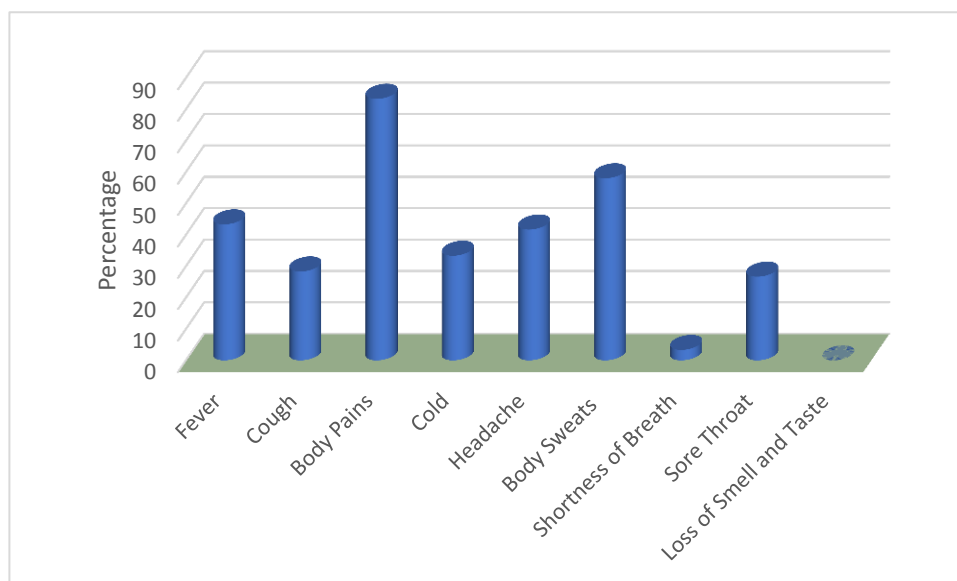


Table2: Previous History and Vaccination distribution among the patients.

<i>Previous History and Vaccination</i>	<i>Number of Patients</i>	
	Yes	No
Previous H/o COVID	8	58
1st Dose Completed	60	0
Vaccination Completed (1 st + 2 nd Dose)	48	12

Figure 2: Distribution of the duration of symptoms among the patients.

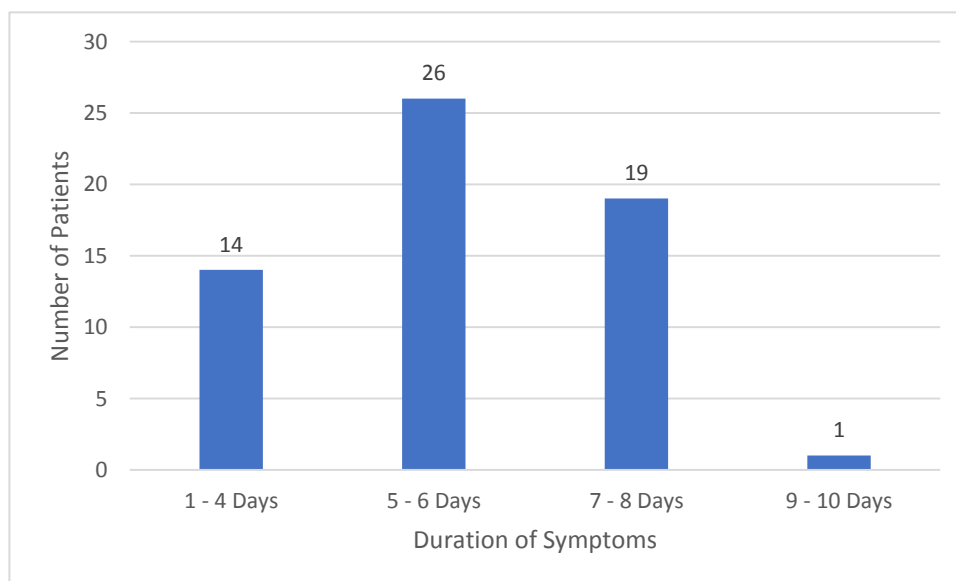


Table 3: Comparison of COVID-19 waves [V.K. Jain, Karthikeyan. Iyengar and R. Vaishya][6]

	1stWave	2ndWave	3rdWave
Causative Virus	SARS-Cov-2 virus(covid -19)	Several mutants like Delta variant	Omicron
Knowledge about the COVID	Less	More	Very High
Symptoms	Mostly related to the Respiratory system	Additional infection like Gastrointestinal etc.	Night Sweats, Headache, Body Pains, etc
Presentation of Symptoms	More severe	Less intense	very less intense
Vaccine	Not available	Approved three vaccines available	More than Three Vaccines Available
Disease Spread	Slower	Much faster	Rapidly
Mortality Rate	Higher	Lower	Very Less
Infection Rate (Postive)	Lower	Much Higher	Much Higher
Duration of	More than 20 Days	up to 14 days	Less than 10 Days

symptoms			
Hospitalization	Very High with ventilation	Moderate with social isolation centers	Home Isolation
Testing Laboratory	One testing Lab (January 2020)	More well-equipped laboratories in Private and Tertiary Government centers	Almost at every PHC and UHC

Discussion:

WHO noticed spread of new variant named Omicron (B.1.1.529) on November 26, 2021, [3], based on the evidence presented to the TAG-VE that Omicron has undergone several mutations [2]. There is no available data stating that infection with Omicron causes more severe disease compared to the other variants, including the Delta virus variant. In South Africa highly infectious (testing Positive) people was observed by this variant. [7]. Still, epidemiological studies are on their path to understand if it is because of Omicron or other factors. In India, two men in Karnataka have tested positive for the Omicron variant of the coronavirus, reported as the country's first cases of the new variant of concern. A laboratory under the INSACOG confirmed the genome sequencing of these people as an omicron variant[8]. This new variant is heavily mutated, with up to 30 mutations observed in the spike protein. The people testing for covid 19 are positive for the Omicron variant has risen rapidly worldwide. Symptoms like sore throat, fever, and running nose are initial reported symptoms in this variant. In addition to the above symptoms, it was reported that night sweats, headaches, and body pains were this variant's initial dominant symptoms.

A recent study (Jiang F, Deng L, et al.) was stated that the most common symptoms at the onset of COVID-19 pneumonia are fever(83%), cough (82%), and dyspnoea (31%), and less common symptoms are muscle pain, headache, dizziness, chest pain, and diarrhea, accounting for less than 10% of patients[9]

A study by Bangyan Zhang et al. observed pneumonia with night sweat as the first symptom of this variant[4]. Night sweat is commonly reported in tuberculosis and who had taken paracetamol or antipyretics during fever. Currently, there have been no reports that night sweats are the first and significant symptom related to Omicron variant

Another study by V. Soriano, P. Ganado-Pinilla, M. Sanchez-Santos, et al.; stated that the proportion of patients with clinical symptoms considered as mild or severe (lasting four days) compared with those without symptoms or with minor symptoms (lasting three days) was significantly higher during the First Wave compared with the SecondWave. Also, they observed that the clinical severity of SARS-CoV-2 infections declined substantially in the second Wave compared with the first Wave, most likely reflecting lower viral inocula as a result of social distancing, increased use of face masks, promotion of outdoor activities, and restrictions on gatherings[10]

A study by V.K. Jain, KarthikeyanIyengar, and R. Vaishya et al., the differences between the First and Second waves of COVID-19 in India, 2021, reported no significant increase in the death rate in the SecondWave. Still, due to the alarmingly high number of infections, the total death numbers are disappointingly high [6]. Our study has shown a gradual decrease in the rate of hospital admissions and a reduction in the severity of the omicron virus and no deaths in this Wave. Most of the patients having symptoms are last for 5-7 days only.

Based on studies, known mutations and preliminary observations, which should be interpreted with caution, indicate that Omicron might spread faster and escape antibodies

more readily than previous variants, thereby increasing cases of reinfection [11] and mild breakthrough infections in people who are vaccinated. Conversely, based on data from previous VOCs, vaccinated people are likely to have a much lower risk of severe disease from omicron infection.

Due to increased awareness of face mask-wearing, maintaining social distance, hand hygiene, and mass vaccination programs reduce the severity of omicron cases. Our study states that clinicians should focus on single symptoms of body pains and body sweats early in detecting the coronavirus omicron variant. Some studies [Koyama et al.] say that loss of smell and taste is one of the symptoms of coronavirus 1st wave and 2nd wave [12], but our study showed that none of the respondents reported among the total 60 respondents the loss of smell and taste. Hence by observation of the whole survey states that body pains and night sweats are the dominant identifiable symptom of Omicron variant; early detection and home isolation, complete vaccination, all the possible measures such as engagement and participation of the public in controlling the disease, strict implementation of COVID Appropriate Behaviours (i.e., social distancing, use of face masks, and hand sanitation) can prevent further spread of the virus).

Conclusion:

From overall observation and analysis of the study, we can conclude that dominant symptoms of body pain and night sweats were more than previously observed common symptoms like fever, headache, loss of sense of smell and taste. Also, because of mass vaccination undergoing programs for covid and awareness about the disease from previous waves, the severity of the illness (Current variant) observed for less duration of time

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