

Original Research Paper

Post covid pulmonary complications in patients attending tertiary care centre

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ABSTRACT

Background: SARS-COV-2 has caused morbidity and mortality at an unprecedented scale globally. During recovery, several patients are found to have functional impairment and radiological abnormalities. **Materials and Methods:** This is a prospective observational study done in 109 patients attending GHCCD, AMC Visakhapatnam during July 2021 to November 2021. This study is approved by institutional ethics committee. After taking a informed consent from patient, detailed history is taken. All the clinical data was statistically analysed and results were obtained. **Results:** Diabetes, unvaccination, severe covid at admission, mechanical ventilation, older age contribute to severe post-covid complications. Regular follow up, rehabilitation therapy, screening for tuberculosis is to be considered. **Conclusion:** post covid fibrosis is the commonest pulmonary complication of covid 19 and presenting with poor prognosis when associated with cavitation, pneumothorax , necrotizing pneumonia.

Key Word: post covid fibrosis, cavitation, pneumothorax, necrotizing pneumonia.

1. INTRODUCTION

SARS-CoV-2 has caused increased morbidity and mortality at an unprecedented scale globally. During recovery, several patients are found to have functional impairment and radiological abnormalities. This study concentrates on postcovid complications & outcomes.

2. MATERIAL AND METHODS

This is a prospective observational study done in 109 patients attending GHCCD, AMC Visakhapatnam during July 2021 to November 2021. This study is approved by institutional ethics committee. After taking a informed consent from patient, detailed history is taken. General examination is done and patient is subjected to routine blood investigations, sputum investigations, X-ray PA view. All the clinical data is analysed.

Study Design: Prospective observational study

Study Location: This was a tertiary care teaching hospital based study done in Department of Pulmonary Medicine, at Andhra medical college, Visakhapatnam, Andhra Pradesh, India.

Study Duration: July 2021 to November 2021.

Sample size: 109 patients.

Subjects & selection criteria:

The subjects were included based on the selection criteria(inclusion & exclusion) who were attending the outpatient department of pulmonary medicine at Andhra medical college.

Inclusion criteria:

1. Patients who are consenting to the study
2. Either sex
3. Aged ≥ 18 years,
4. Patients with past history of covid 19 illness

Exclusion criteria:

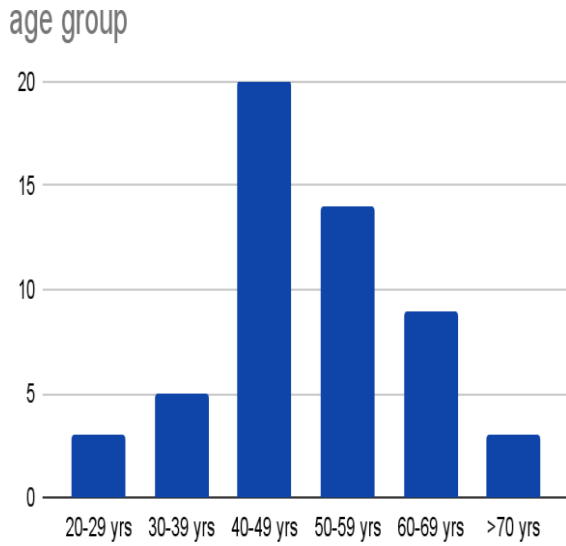
1. Patients who are not willing for the study
2. Age < 18 years
3. Patients with established pulmonary fibrosis and cavitating lung diseases.

Statistical analysis

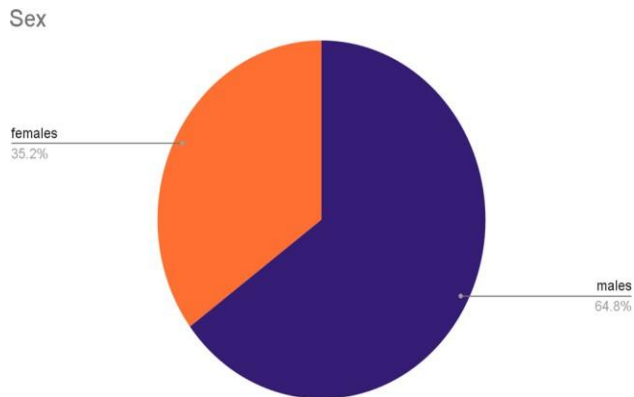
The clinical data is analysed using bar charts, Pie charts. Percentage, mean are used to assess the severity of post covid complications

3. RESULTS

AGE DISTRIBUTION:



GENDER DISTRIBUTION:



WHO SEVERITY GRADING:

WHO severity at covid pneumonia	number of patients
Grade 5	24
Grade 4	29
<Grade4	1

COMORBIDITIES:

Comorbidities	no
Diabetes	33 (61%)
hypertension	21 (38%)
copd	4 (7.4%)
tuberculosis	2 (3.7%)
asthma	1 (1.8%)

cerebrovascular stroke	1 (1.8%)
HIV	1 (1.8%)
psoriasis	1 (1.8%)
pneumothorax	1 (1.8%)

Diabetes and hypertension	14(25.9%)
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POST COVID PULMONARY COMPLICATIONS:

Type of post covid pulmonary complication	number (%)
Post Covid Fibrosis	48 (88%)
Post Covid Pneumothorax	7 (12.9%)
Post Covid Cavity	7 (12.9%)
Post Covid lung abcess	1 (1.8%)

Post Covid necrotizing pneumonia	2 (3.6%)
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COMPLICATION ASSOCIATED WITH POST COVID FIBROSIS:

Postcovid fibrosis associated with (+)	
Pneumothorax	5 (9.2%)
cavity in lung	3 (5.5%)
necrotizing pneumonia	1 (%)

4. DISCUSSION

Post covid complications are more common in males accounting to 66.8% than females (35.2%). 40-49 years age group is most commonly affected with postcovid complication followed by 50-59 years and 60-69 years. Most of the post covid complications are associated with COVID19 grade 4 & 5 severity than less than grade4. Diabetes and hypertension are the major comorbidities associated with post covid complications Post covid fibrosis is the most common post covid complication accounting to 88% followed by postcovid pneumothorax. Post covid fibrosis is commonly associated with pneumothorax in 9.2% followed by cavity in 5.5% and necrotising pneumonia in 1%.Post covid cavities are mainly due to MTB followed by Klebsiella, Pseudomonas, E.coli, fungal infections.50% of patients required oxygen therapy with nasal prongs & face mask while 50% of patients were on NIV/HFNO support for

COVID pneumonia. The mean duration of NIV/HFNO support accounts to 15 days. Mean hospital stay during covid 19 admission is 38.6 days. Patient had usage of steroids on average for duration of 28.2 days

5. CONCLUSION

Post covid fibrosis is the commonest complication of covid 19 requiring oxygen support/NIV/HFNO responding to steroids as the main stay of treatment.

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