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Original Research Paper

Medicine

FOLLOW UP CHEST CT FINDINGS FROM DISCHARGED PATIENTS WITH COVID 19

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ABSTRACT

Introduction: Covid 19 is an infectious disease caused by severe acute respiratory syndrome Coronavirus 2 (SARS-COV-2).

Aims And Objective: This study was done to understand the Computed Tomography(CT) findings in discharged patients with Covid 19.

Materials And Methods: CT scan was done in all the patients who came to the Out patient department of our hospital with or without complaints following recovery from the virus.

Results: 45 recovered patients were included in the study. CT scan was done in all of them. 15 patients had basal consolidations and fibrotic tags.17 had subtle peripheral ground glass opacity with interstitial septal thickening in both or one of the lobes.10 patients had no focal lesion, pulmonary consolidation, adenopathy or pleural effusion.03 had thinned cysts/bullae in lungs bilaterally alongwith subtle upper lobar focal infiltrates.

Conclusion: The present study highlights the CT findings in discharged patients with Covid 19. As fibrotic changes and consolidations are found in a group of patients with Covid 19, diagnosis and early management might collectively contribute to the better control of the disease and outcome. Due to limited number of cases studied , more such studies are needed to understand the CT findings in Covid -19 so that we can formulate appropriate drugs and decrease the complications and mortality in patients with post Covid 19.

KEYWORDS : Covid 19, Computed Tomography,Follow-up Studies

INTRODUCTION:

Covid 19 is an infectious disease caused by severe acute respiratory syndrome Coronavirus 2 (SARS-COV-2).It was first identified in december 2019 in Wuhan, China and now it is causing a Pandemic. The clinical spectrum of Covid 19 is heterogenous. Symtoms vary from mild flu like illness to severe acute respiratory distress syndrome, multiorgan failure, shock, cardiac injury and death.[1] RT-PCR is the standard diagnostic test for Covid 19 as it detects the nucleic acid of SARS-CoV-2 in throat swabs. Instead, chest computed tomography (CT) was recommended for screening suspected patients and monitoring temporal changes of COVID-19 with higher sensitivity of 97%.[2]

Major CT demonstrations described were Ground glass opacity, consolidation, parenchymal bands, and crazy-paving pattern, vascular dilatation, traction bronchiectasis, subpleural bands and architectural distortion, A semi-quantitative scoring system was used to assess pulmonary involvement of abnormalities. Each lung lobe scoring from 1. < 5% involvement; 2. 5% - 25% involvement; 3. 26% - 49% involvement; 4. 50% - 75% involvement; 5. > 75% involvement.The total CT score ranged from 0 to 25.[3] This study was done to understand the CT findings in discharged patients with Covid 19.

MATERIALS AND METHODS:

Various studies are done throughout the world to understand the CT findings in Covid 19. In this study we tried to understand the CT findings in discharged patients with Covid19. CT scan was done in the patients who came to the out-patient department of our hospital with or without complaints following recovery from the virus.

RESULTS:

45 recovered patients were included in the study. CT scan was done in all of them. 15 patients had basal consolidations and fibrotic tags.17 had suble peripheral ground glass opacity with interstitial septal thickening in both or one of the lobes.10 patients had no focal lesion, pulmonary consolidation, adenopathy or pleural effusion.03 had thinned cysts/bullae in lungs bilaterally alongwith subtle upper lobar focal infiltrates as shown in figure 4.

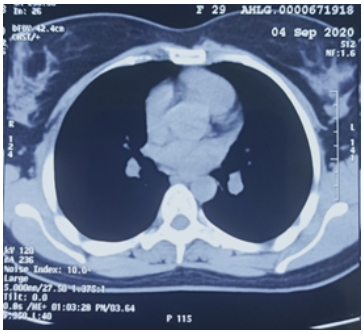

Fig 1:Normal CT Image.

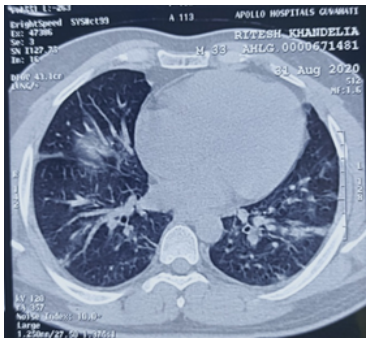

Fig 2: CT Image Showing Basal Consolidation And Fibrotic Tags.

Fig 3: Suble peripheral ground glass opacity with interstitial septal thickening.

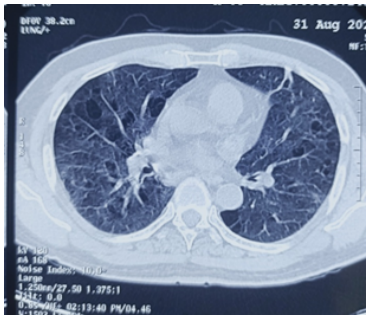

Fig 4: Thinned Cysts/bullae In Lungs Bilaterally Alongwith Subtle Upper Lobar Focal Infiltrates

DISCUSSION:

Chest CT is a vital component in the diagnostic algorithm for patients with suspected COVID-19 infection. This study described dynamic patterns of radiological abnormalities in follow up patients with COVID-19 after discharge. The pulmonary involvement peaked at 3-4 weeks after symptom onset with consolidation and Ground glass opacity as predominant pattern. Abnormalities are still found in discharged patients with fibrotic tags and consolidation being the commonest finding in severe cases. These patients need to be recognised early so that treatment such as anti-fibrotics and chest exercises can be initiated early.

CONCLUSION:

The present study highlights the CT findings in discharged patients with Covid 19. As fibrotic changes and consolidations are found in a group of patients with Covid 19, diagnosis and early management might collectively contribute to the better control of the disease and outcome. Due to limited number of cases studied , more such studies are needed to understand the CT findings in Covid -19 so that we can formulate appropriate drugs and decrease the complications and mortality in patients with post Covid 19.

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