

Chest CT-scan findings of an Iraqi patient with symptomatic covid-19 disease

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ABSTRACT

Background: On the first of June, 2021, the total number of the registered cases of covid-19 by the Iraqi Ministry of Health was 1,201,352, and the total number of deaths was 16375 patients. The aim of this paper is to describe chest CT-scan findings of an Iraqi patient who was observed early during June, 2021, and had symptomatic covid-19, but he didn't need hospitalization. **Patients and methods:** A forty-year old school teacher developed covid-19 disease with fever, fatigue, anorexia, and cough. The patient recovered after about two weeks.

Results: Chest CT-scan performed during first week of illness showed:

- (1) Multiple bilateral ground glass opacities.
- (2) Atelectatic bands.
- (3) Thickening of the interlobular septa.
- (4) Vascular thickening.

Conclusion: The chest CT-scan findings in this Iraqi patient was rather typical of covid-19 disease and included the most commonly reported abnormality of ground-glass shadows

Keywords: Chest CT-scan, covid-19, Iraqi patient.

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Introduction

On the first of June, 2021, the total number of the registered cases of covid-19 by the Iraqi Ministry of Health was 1,201,352, and the total number of deaths was 16375 patients [1]. A significant number of covid-19 patients who develop pneumonia were found to have normal chest radiographs. However, Yoon et al (2020) emphasized that most Korea patients with covid-19 pneumonia had abnormalities on chest CT-scan mostly including ground-glass opacities with bilateral patchy, confluent or nodular shadows [2].

The aim of this paper is to describe chest CT-scan findings of an Iraqi patient who was observed early during June, 2021, and had symptomatic covid-19, but he didn't need hospitalization.

Patients and methods

A forty-year old school teacher developed covid-19 disease with fever, fatigue, anorexia, and cough. The patient recovered after about two weeks.

Result

Chest CT-scan performed during first week of illness (Figure-1) showed:

- (1) Multiple bilateral ground glass opacities.
- (2) Atelectatic bands.
- (3) Thickening of the interlobular septa.
- (4) Vascular thickening.

There was no pleural effusion or thickening.

Conclusion: The chest CT-scan findings in this Iraqi patient was rather typical of covid-19 disease and included the most commonly reported abnormality of ground-glass shadows.

Discussion

Xiang et al (2020) reported the CT-scan findings of fifty three patients (31 males, 22 females; mean age, 53 years) who had Covid-19 pneumonia. They observed the occurrence of ground-glass opacity with consolidation in 24 patients (45.3%) and pure ground-glass opacity in 28 patients (52.8%). Crazy-paving occurred in 14 patients (26.4%), bronchiectasis

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occurred in 12 patients (22.6%), atelectasis occurred in 7 patients (13.2%), parenchymal bands occurred in 6 patients (11.3%), air bronchogram occurred in 6 patients (11.3%), and interlobular thickening occurred in 5 (9.4%).

Xiang et al suggested that most Covid-19 patients who develop pneumonia had abnormalities detectable on chest CT-scan on the time of presentation [3].



Figure-1A: Chest CT-scan of the patient



Figure-1B: Chest CT-scan of the patient



Figure-1C: Chest CT-scan of the patient

4-Kong et al (2020) reported the CT-scan findings of twenty-two patients hospitalized with Covid-19 disease during the period from January 17, 2020 to February 15, 2020. On presentation nineteen patients had fever and eight patients had cough. Chest CT-scan showed ground-glass opacities in 18 patients, lung consolidation in 7 patients, interlobular septal thickening in five 5 patients, and fibrosis-like stripes in 4 patients.

Wang et al (2021) reported the CT-scan findings of 693 covid-19 patients, including 13 children (51% males and 49% females) from 16 hospitals of southeast China during the period from January, 19 to March, 27, 2020. The average age of the patients was 46 years.

Early CT-scan findings included ground-glass-like density shadows (single or multiple nodular, patchy, or flaky) occurred in 47.27% of the patients, fibrous lesions occurred in 42.60% of the patients, and micro-vascular thickening occurred in 40.60% of the patients [4].

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