

The Efficacy of Chest X-Ray for the Diagnosis and Follow-up in Young Adult COVID-19 Patients with Mild Dyspnea No Comorbid Diseases

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Abstract

Purpose: We investigated whether Chest X-Ray (CXR) could replace CT modality in the diagnosis and during the treatment of young adult COVID-19 patients with mild dyspnea with no comorbid diseases. **Materials and Method:** This retrospective study involved an examination of the records of a total of 956 patients hospitalized between March 1 and May 15, 2020. The study included a total of 64 patients, aged 21–60 years with mild dyspnea with no comorbid diseases and with COVID-19 infection confirmed by a polymerase chain reaction, who underwent a CXR at admission and CT imaging within 24 hours. The first CXR and CT images at the time of admission were evaluated in terms of lesions and localization. The clinical-radiological course of the diseases with CXR were also statistically evaluated. **Results:** CT was normal in 18/64 (28.2%) patients, all of whom also had normal CXR. The rest of the patients 46/64 (71.8%) with an abnormal CT, the CXR was normal in 18/46 (39.1%) and abnormal in 28/46 (60.9%). The time between the onset of complaints and admission to the hospital in patients with abnormal and normal CXR was 3.5 ± 2.3 days and 2.1 ± 1.1 , which was statistically significant ($p = 0.004$). The hospital stay duration of the patient with abnormal and normal CXR was 9.6 ± 3.5 and 9.5 ± 3.4 ($p=0.928$), respectively, and was not statistically significant. **Conclusion:** CXR could be used in the diagnosis and follow-up of young adult COVID 19 patients with mild dyspnea no comorbid disease. In the case of early admission to the hospital, there is not a significant difference between using CXR or CT in the management of these patients. Therefore, the use of CXR in these patients groups will reduce the burden of CT units in pandemic conditions with limited resources.

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