

COVID-19: PCR test results and radiological findings

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Abstract

COVID-19 pandemic has affecting Azerbaijan since February 2020. Initially, due to negative PCR test for COVID-19, some patients with signs of the disease were left without proper attention.

Aim: Analyze the results of the PCR test for COVID-19 and the radiological data of patients who received inpatient treatment at the Research Institute of Lung Diseases of Azerbaijan.

Methods: There are 131 patients (female 78, male 53) with COVID-19 were randomly selected for the analysis. The age range of patients was 21-85 y.o., with the highest number in the 60-69 (46.6%) age group. All patients underwent PCR analysis of nasopharyngeal swabs specimens for the COVID-19 infection. Chest X-ray was performed in all patients, 82 of whom also underwent computed tomography (CT).

Results: Although bilateral lung damage as pneumonia was found on X-ray in all cases, there are only 34.4% of patients had positive PCR-test. CT revealed ground-glass opacities in 71 (22 had positive PCR), interstitial inflammation in nine (five had positive PCR), small peripheral consolidations in two cases (both had positive PCR). Comparison of the prevalence of the lungs lesion and the test results showed that the larger lung damage, the less likely a positive test. There are 78.7% of patients had family contact with COVID-19 patients. Sometimes two or five members of one family had the same clinical symptoms and radiological changes, but the PCR-test is positive only in one person.

Conclusion: The local epidemic situation is given us a reason to start an antiviral therapy in time in the presence of symptoms and radiological changes even there is a negative PCR-test for COVID-19.

Biography

Gulzar Aliyeva is an academic secretary of the Scientific Research Institute of Lung Diseases of Azerbaijan. The main fields of activity are pulmonology and allergology. She is also clinical researcher and presented own results in different international congresses. She has over 100 publications, her publication H-index is one.