**investigation of spirometry findings in recovered patients with COVID-19**

**Abstract**

**Introduction**: evidence shows that the lung is the most involved organ in SARS Cov2 disease. Studies have reported that lung dysfunction remains after recovery and discharge in these patients. Therefore, considering the existence of evidence of lung sequelae in patients who have recovered from corona virus and the lack of evaluation of pulmonary function tests to identify the level of lung volume impairment and respiratory dysfunction after the patients recover, this study aims to investigate the spirometry findings in patients Recovered from the covid-19.

**Materials and methods**: The present study was a semi-experimental and analytical study in patients with covid-19 who had been cured for 3 months. All patients were subjected to spirometry in order to investigate lung dysfunction, and interpretation of the results, breathing patterns and pulmonary capacities of individuals were reported based on the percentages predicted by the American Respiratory Society (ATS) and based on the opinion of a lung specialist. Finally the data was statistically analyzed by spss software.

**Findings**: During this study, 185 patients who recovered from covid-19 after 2 to 3 months were examined for lung function using spirometry. The average age of the patients was 52.8 ± 13.21 years with a range of 18 to 79 years. Among the patients, 114 (61.6%) were men and 71 (38.4%) were women. The majority of patients were in the age group of over 60 years (29.2%) and 50 to 60 years (29.2%). The results of the study showed that spirometry findings were normal in 99 patients (53.5%). 62 patients (33.5%) had a restrictive pattern, 7 patients (3.8%) had an obstructive pattern, 9 patients (4.9%) had a small airway disease pattern, and 8 patients (4.3%) had a restrictive pattern. and had SAD. The results of the present study showed that lung involvement patterns have no significant relationship with age and gender (p-value<0.05).

**conclusion**: The present study showed that the destructive effects of covid-19 in patients will remain after recovery and 3 months later, and the most common pattern of involvement in the spirometry of patients is the restrictive pattern.

**Key words**: Corona virus, spirometry, lung function