

## RADIOLOGICAL AND FUNCTIONAL EVALUATION OF LUNG ABNORMALITIES IN THE COURSE OF SCLERODERMA

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**Background:** Scleroderma typically manifests as fibrosis of the skin and may also involve other organs, particularly the lungs, the kidneys and cardiovascular system. Interstitial lung disease and functional abnormalities are observed in most of the patients. **Aim:** To evaluate the radiological changes of lungs and its correlation with functional disorders in scleroderma patients. **Material and methods:** The study was conducted on 37 scleroderma patients, including 31 females and 6 males. High resolution computed tomography (HRCT), Warrick score system and functional evaluation of the lungs, like spirometry, bodypletyzmography and carbon monoxide diffusion examination (DLco) were performed in all cases. Statistical analysis was assessed by r Pearson correlation test and was considered significant at  $p < 0.05$ . **Results:** The HRCT showed septal and subplural lines in 70%, ground-glass opacities in 51% and honeycomb lung in 30% of all cases. The DLco values were abnormally decreased in 92% of the patients. Total lung capacity (TLC) value described a restriction in 24% individuals and only 11% of patients presented an obstruction. The Warrick score correlated inversely with diffusing lung capacity for carbon monoxide-DLco ( $p < 0.05$ ,  $r = 0.36$ ) and total lung capacity-TLC ( $p > 0.05$ ,  $r = -0.21$ ). **Conclusions:** We conclude that lung pathology in scleroderma patients may coexist with functional pulmonary disturbances. Warrick score system based on HRCT accompanied by diffusing lung capacity for carbon monoxide (DLco) and total lung capacity test (TLC) could be recommended to evaluate a lung damage in the course of the disease.