

Impact of Pulmonary Rehabilitation on Respiratory Parameters in Interstitial Lung Disease Patients: A Tertiary Care Hospital Study

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Abstract : Purpose: Pulmonary rehabilitation plays a key role in management of chronic lung diseases. However, pulmonary rehabilitation is an underused modality in the management of interstitial lung disease (ILD). This is because limited information is available in literature and no data is available from India on this issue so far. The study was carried out to evaluate the role of pulmonary rehabilitation on respiratory parameters in ILD patients. Methods: The present study was a prospective randomized non-blind case control study. Total of 40 ILD patients were randomized into 2 groups of 20 patients each viz 'pulmonary rehabilitation group' and 'control group'. Pulmonary rehabilitation group underwent 8 weeks pulmonary rehabilitation (PR) along with medical management as per guidelines and the control group was advised only medical management. Results: Mean age in case group was 59.15 ± 10.39 years and in control group was 62.10 ± 14.54 years. The case and the control groups were matched for age and sex. Mean MRC grading at the end of 8 weeks showed significant improvement in the case group as compared to control group ($p= 0.011$ vs $p = 0.655$). Similarly, mean St. George Respiratory Questionnaire (SGRQ) score also showed significant improvement in pulmonary rehabilitation group at the end of the study ($p= 0.001$ vs $p= 0.492$). However, FEV1 and FVC had no significant change in the case and control group. Similarly, blood gases also did not show any significant difference in the group. Conclusion: Pulmonary rehabilitation improves breathlessness and thereby improves quality of life in the patients suffering from ILD. However, the pulmonary function values and blood gases are unaffected by pulmonary rehabilitation. Clinical Implications: Further large scale multicentre study is needed to ascertain the association.

Keywords : ILD, pulmonary rehabilitation, quality of life, pulmonary functions

Conference Title : ICBIPRD 2015 : International Conference on Bronchology, Interventional Pulmonology and Respiratory Diseases

Conference Location : Bangkok, Thailand

Conference Dates : December 17-18, 2015