Prevalence of Anxiety and Depression and their Relationship with Clinical Characteristics in Patients with Interstitial Lung Disease

Fernandez M1, Rodriguez-Barreto O2, Buendia-Roldan I2, Alberti M1, Caro F1, Ipuche F1, Miranda A1 and Paulin F1

1Department of Life Sciences, Rehabilitation Hospital, Maria Ferrer Respiratory Clinic, Buenos Aires, Argentina 2Department of Personalized Medicine, National Institute of Respiratory Diseases, Ismael Cosío Villegas, Mexico City, Mexico, Email: ivettebu@yahoo.com.mx

ABSTRACT

Interstitial Lung Diseases (ILD) is a group of diseases characterized by poor prognosis and high mortality.

Patient's symptoms are dyspnea and cough, which directly affect Health-Related Quality of Life (HRQoL). Information about incidence, prevalence and mortality in ILD is scarce in Latin America, so it is difficult to estimate the magnitude of the problem. In ILD the decrease in HRQoL frequently is originate by emotional distress, anxiety and depression as two of the most common problems associated. Our aim was to assess the frequency of anxiety and depression in ILD patients from two specialized centers in Latin American. Additionally, we analyze the relationship between mood alterations and clinical variables with HRQoL. We developed a cross-sectional study, with 149 patients; we used Hospital Anxiety and Depression Scale (HADS). Of all patients 27% had anxiety and depression, argentine cohort with higher means (anxiety 6 ± 3 *vs*. 2 ± 2 and depression 5 ± 4 *vs*. 2 ± 2, p>0.0001). We found difference only in the forced vital capacity, which was lower in Mexican subgroup. Our findings indicate that ILD are associated with anxiety/ depression problems and they have a direct impact in terms of quality of life in this cohort.

Interstitial Lung Diseases (ILD) is a group of diseases that affect pulmonary interstitium, characterized by poor prognosis and high mortality. For example, in Idiopathic Pulmonary Fibrosis (IPF), the average expected of survival is 3 to 5 years without treatment, the most frequent symptoms are dyspnea and cough, which directly affect Health-Related Quality of Life (HRQoL) ILD are usually associated with different chronic comorbidities In Mexican population several comorbidities have been reported: 52% diabetes mellitus, 40% systemic arterial hypertension, 35% COPD, 27% pulmonary hypertension, 5% obstructive sleep apnea syndrome and 3% gastroesophageal reflux disease Absence of data about incidence, prevalence and mortality in ILD in Latin America, makes difficult to estimate the magnitude of the problem; however, ILD are considered pulmonary Chronic- Degenerative Disease (CDD) In CDD, progressive decrease in terms of quality of life, loss of motor skills, physical and esthetical deterioration frequently originate emotional distress; we understand anxiety and depression as two of the most common and stressful problems.

Depression is characterized by the presence of feelings like sadness, loss of interest or pleasure in daily activities, low energy and loss of concentration. Its prevalence and the relationship with other chronic disease such as cancer, AIDS, diabetes among others have been studied Worldwide prevalence of depression is 4.4%. In Latin America, the country with the highest levels

of depression is Brazil with 5.8% of its total population, while Argentina presents 4.7% and Mexico only 4.2% Reported studies that measure the impact on mental health in respiratory diseases have been performed mainly in COPD, asthma and lung cancer. There are few studies in patients with ILD. Some authors such as Youth, Glaspole and Jin Lee have reported between 15% and 30% of this population presents symptoms of anxiety or depression, most of them underdiagnosed ILD´s have a direct impact on HRQoL, oxygen desaturation impacts even at basic activities such as talking or self-care. On the other hand, these diseases imply a high economic burden given that the patient's work activities are affected or impeded, and the treatments are expensive and necessaries. The aim of our study was to assess the frequency of anxiety and depression in patients with ILD from two specialized centers in Latin American countries. Additionally, we analyze the relationship between scales that evaluate mood alterations and clinical variables, functional tests and HRQoL.

Materials and Methods

We developed a cross-sectional study in 2 centers specialized in ILD: The National Institute of Respiratory Diseases "Ismael Cosío Villegas" in Mexico City and the Respiratory Rehabilitation Hospital "María Ferrer" in the city of Buenos Aires, Argentina between August 2017 to December 2018. Patients were prospectively enrolled in a consecutive manner from the external consultation of the 2 centers specialized in interstitial diseases by the psychologists of the multidisciplinary team, who explained the objective of the study and obtained informed consent. Only one patient was excluded for not signing the informed consent. After signing informed consent (approved by the respective research bioethics committee of both institutions), respiratory function test we performed during regular follow-up visits of patients. For spirometry and diffusion of carbon monoxide we use EASY ONE PRO® and CPFS/D MEDGRAPHICS® equipment, according to the ATS/ERS guidelines. 6-minute walk was conducted according to the ATS guidelines Later, Hospital Anxiety and Depression Scale (HADS) was applied by the psychologists using the criteria described by Galindo HADS instrument was interpreted as normal with score of 0-7, moderate 8-10, and severe >11, either in anxiety or in depression.