





# RETROSPECTIVE ASSESSMENT OF IMMUNOSUPPRESSIVE THERAPY IN PATIENTS WITH SYSTEMIC SCLEROSIS AND INTERSTITIAL LUNG DISEASE IN A TERTIARY HOSPITAL

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#### **BACKGROUND**

Systemic sclerosis (SS) is a rheumatic autoimmune disease with clinical manifestations caused by autoimmunity, vasculopathy and fibrosis in skin and organs. Interstitial lung disease related to systemic sclerosis (SS-ILD) is a common manifestation and the leading cause of death in the disease. Treatment of SS-ILD is done with immunosuppressive therapy, including cyclophosphamide, azathioprine, mycophenolate and rituximab.

#### **MATERIALS AND METHODS**

A retrospective study was designed by evaluating the electronic medical record of patients followed at the SS outpatient clinic of a tertiary hospital. Inclusion criteria were patients diagnosed with SS, who attended at least one medical appointment between 2017 and 2018 and who underwent high resolution chest tomography (HRCT) for the evaluation of SS-ILD. Data on demographic, clinical, laboratorial and immunosuppressive characteristics were evaluated. Subsequently, the patients were divided according to the presence of HRCT changes compatible with SS-ILD and forced vital capacity (FVC) in the pulmonary function test. FVC less than or equal to 70% was considered as cut-off point. The statistical analysis evaluated descriptive frequencies and compared categorical or continuous variables with the appropriate statistical tests. A p-value less than 0.05 was considered statistically significant. Since it was a retrospective study of medical records, it was not necessary to apply the informed consent.

## **RESULTS**

In the study, 275 patients fulfilled the inclusion criteria, and 168 (61.1%) patients presented SS-ILD in HRCT. The demographic, clinical and immunosuppressive characteristics are described in table 01. The majority of the patients were women, with a mean age of 54 years, limited form of SS and with a long time of disease duration. Comparison between patients with and without SS-ILD showed that the SS-ILD group was associated with lower mean FVC, diffuse form, anti-topoisomerase I, anti-RNP, and use of any immunosuppressants. The subgroup without SS-ILD was associated with anti-centromere antibody. A subgroup analysis of patients with FVC less than or equal to 70% showed association of this group with greater use of immunosuppressants, particularly with cyclophosphamide and azathioprine (results shown in table 02).

### **CONCLUSION**

This retrospective study evaluates the SS population of a tertiary hospital with a focus on the subgroup with SS-ILD, showing that these patients have worse CVF and association with the presence of anti-topoisomerase I and anti-RNP. In addition, they use more immunosuppressants, such as cyclophosphamide and azathioprine, especially patients with FVC less than 70%.