26 patients (55% of patients with OASI, 5.9% of all patients) had to stop cancer immunotherapy due to an OASI, one because of a rheumatic disease (systemic lupus). 52 patients were treated with corticosteroids, 1 patient with methotrexate (psoriatic arthritis), 3 patients with infliximab (collitis) and 1 patient with abatacept (myocarditis). 1 patient died after an OASI (collitis).

**Conclusion:** The first results of this prospective study, using an original patient-centered methodology, confirm the expected incidence of autoimmune events secondary to cancer immunotherapy and the role of rheumatologists in their therapeutic management.

**REFERENCES:**


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**POS1413**

**INTERSTITIAL LUNG DISEASE (ILD) PREVALENCE AND TRENDS IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE), RHEUMATOID ARTHRITIS (RA), SCLERODERMA (SCL), MYOSITIS AND MIXED CONNECTIVE TISSUE DISEASES (MCTD) ALONG WITH COMPARISON OF LENGTH OF HOSPITALIZATION STAY (LOS), COST AND RACIAL PREDISPOSITION AMONG THESE PATIENTS

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**Background:** ILD includes a category of lung disorders seen in a variety of autoimmune conditions. Prevalence of ILD in autoimmune diseases is variable and poorly studied. ILD is more commonly seen in systemic sclerosis, with 90% of patients showing some histological changes on High resolution CT scan. ILD is less common in SLE compared to SCL, with ILD not only a complication but also a poor prognostic factor in these patients. Prior studies have shown increased prevalence of ILD in RA patients over the years. For myositis, ILD can develop during the course of disease or can precede the diagnosis in a small subset of patients.

**Objectives:** Our study aims to determine the prevalence of ILD in diseases like SLE, Scleroderma, RA, MCTD, and Myositis over the years as well as identify racial predisposition, LOS, Cost of hospitalization in these patients

**Methods:** We used the Nationwide Inpatient Sample database (years 2003-2018) and examined patients with ILD using validated International Classification of Disease (ICD) codes. Data from 2015 was excluded from the study in light of the transition of the coding system from version 9 to 10. We identified cases having the diagnostic codes ‘ILD, RA, Scleroderma, MCTD or Myositis’ prevalence as well as demographics, cost of hospitalization, and length of stay (LOS) was analyzed and charted. Data was analyzed using statistical analysis system (9.4) software.

**Results:**

We identified a total of 149,691 cases of ILD over 15 years. Patients with RA had the highest prevalence of ILD amongst the 5 studied autoimmune diseases. The prevalence rate of ILD in RA patients in 2003 was 3.3% which significantly reduced to 0.93% in 2017. The peak was in 2013 (peak of 6.4%). Prevalence rate of ILD with myositis decreased from 0.72% in 2003 to 0.46% in 2018 (p < 0.0001). The prevalence rates of SLE, Scleroderma, and MCTD in cases with ILD significantly increased from 1.38% to 163%, 138% to 1.76%, and 0.14% to 0.54% from 2003 to 2018 respectively. The average age of ILD cases with SLE was significantly younger compared to ILD without autoimmune disease (59.28 vs 72.32 years, p < 0.0001), RA (69.72 vs 72.17 years, p < 0.0001), Scleroderma (62.01 vs 72.28 years, p < 0.0001), Myositis (59.56 vs 72.19 years, p < 0.0001) and MCTD (59.6 vs 72.18 years, p < 0.0001). On examining the racial distribution, the African American population with ILD when compared to other races were more likely to have underlying SLE, MCTD, Myositis or Scleroderma. In ILD with RA, Native Americans were the most affected racial demographic followed by African Americans. Average cost of hospitalization was higher in ILD with MCTD (104.631 vs 671,264.6, p < 0.0001), Myositis (105,623 vs 717,232.9, p < 0.0001) and Scleroderma (88,736.2 vs 717,135.5, p < 0.0001). Average LOS was significantly longer in RA (7.17 vs 6.66 days, p value 0.0006), MCTD (77.71 vs 6.67 days, p value 0.0008), Myositis (8.33 vs 6.66 days, p value < 0.0001) and Scleroderma (707 vs 6.67 days, p value 0.0176). Though not significant, average LOS was longer in SLE (6.70 vs 6.67 days, p value 0.4999).

**Conclusion:** Our study shows that the prevalence of RA in ILD cases has significantly reduced through the years. This can be attributed to the better understanding of the disease and its risk factors as well as the availability and use of newer biologic agents to obtain better control. However, the prevalence of SLE, Scleroderma, and MCTD in ILD cases has increased over the years. This points to the need for better therapies as well as highlights the fact that the overall recognition and diagnosis of these diseases have increased over the years. Racial predilection also comes to light, suggesting the need for special attention to certain races to diagnose the autoimmune disease earlier. Average LOS and cost of hospitalization were also higher in ILD cases with autoimmune disease, reflecting the higher socioeconomic burden.

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**POS1414**

**RISK OF CANCER IN CONNECTIVE TISSUE DISORDERS IN THE NORTH EAST OF ITALY OVER 15 YEARS OF FOLLOW-UP**

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**Background:** Connective tissue diseases (CTD) include systemic lupus erythematosus (SLE), Sjögren’s syndrome (SS), systemic sclerosis (SSc), polymyositis (PM), and dermatomyositis (DM). CTD are characterized by dysfunction of the immune system that leads to the loss of tolerance to self-antigens [1]. Shared genetic, environmental factors, medical treatment of autoimmune diseases and dysregulated immune function have led to speculation of an elevated cancer incidence in patients with autoimmune diseases [2].

**Objectives:** The present study aimed to evaluate the cancer risk associated with the most relevant CTD in the northern Italian region of Friuli Venezia Giulia over the years 2002-2017. The primary objective was to determine whether the risk of malignancy was higher among these rheumatic conditions than the age- and sex-corresponding general population.

**Methods:** A retrospective population-based cohort study was conducted using data from healthcare databases of the Friuli Venezia Giulia region, north-east of Italy (1,206,000 inhabitants). Information on demographic characteristics, hospital discharges, exemption from medical charges, drug prescriptions, were individually matched with those of the population-based cancer registry. The cancer risk was assessed in people diagnosed with the following diseases: SLE, SS, SSc, PM, and DM. To compare the cancer incidence in the cohort with the general population, Standardized Incidence Ratios (SIRs) were calculated as the ratio between the observed and the expected number of cancer cases. The cohort included subjects resident in the Friuli Venezia Giulia region, diagnosed with at least one of the following diseases: SLE, SS, SSc, DM, and PM. To guarantee the highest homogeneity and comparability of the exemptions codes, the analysis was restricted to the years 2002-2017. Excluding criteria were: (1) follow-up shorter than 90 days; (2) concurrent diagnoses of rheumatoid arthritis (RA), psoriatic arthritis or ankylosing spondylitis; (3) ever use of biologic drug specific to treat RA (with the exception of rituximab), psoriatic arthritis or ankylosing spondylitis.

The patients were observed starting from 90 days after the first date when the diagnosis was mentioned in hospital discharges or exemptions, and they were followed until cancer diagnosis, death, change of regional residence, or December 31, 2017, whichever came first.